

THE ACADEMY.

A Record of Literature, Learning, Science, and Art.

"INTER SILVAS ACADEMI QUÆRERE VERUM."

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General Literature.

Songs of the Sunlands. By Joaquin Miller. Longmans. 1873.

RATHER more than two years ago Mr. Joaquin Miller surprised and delighted the world with a volume of poems which were both new in subject and fresh in style. His descriptions of the sun-bathed scenery of Mexico and California, the bold poetic myths which proved his sympathy with nature in her sublimity, and his pictures of life and passion far removed from the experience of the Old World, were so attractive that it was impossible not to feel that a new poet rich in youthful genius had appeared. Though the warmest admirers of *Songs of the Sierras* might confess that Mr. Miller was deficient in dramatic force and not free from imitations of Byron and more recent lyrists, yet even his severest critics could not deny that he possessed the faculty of imaginative description, vigour of language, melody of rhythm, and what is called originality—the power to apprehend and utter after a fashion of his own. These were no insignificant qualities in a poet who had besides at his command the wild tales and the gorgeous landscape of Southern America. Nor was there any reason to doubt that Mr. Miller's defects might be corrected and his true excellence as a lyrist and *raconteur* be strengthened by growth and study. Yet it must now at the outset be admitted that in the volume before us his old gifts, though still remarkable, have rather run to seed, while his faults of imitation and incompleteness have been confirmed. It is a pity for example that a poet who claims to have chosen only the primeval forces of nature for his masters (see pp. 51, 53) in silence and in song, should have adopted the exquisitely artificial rhythms which Mr. Swinburne has made his own, without at the same time taking the trouble to acquire Mr. Swinburne's art. Disregard of rhyme and metre and language may do well enough in the style of a poet who echoes the fitful Æolian music of the pine-woods of Yosemite; but we cannot welcome *Cyprus and spices, Judah and beauty, other and heather*, in stanzas of which this is a specimen :

"In the place where the grizzly reposes,
Under peaks where a right is a wrong,
I have memories richer than roses,
Sweet echoes more sweet than a song."

It is not difficult to write nonsense verses in this metre. Any literary man can turn out scores of stanzas like the following, which indeed are far from being Mr. Miller's, but are introduced here for the sake of showing how dangerous it is to trust to mere sound :

"O rend for the seasons are rending,
And bend for the billows are bent,
Send songs for the torrents are sending
A song to thy spirit unshent."

Or :

"Go forth to the furrow and sow it
With seed in the spring-time of truth,
Spread the rich golden grain for the poet
To garner ere winter with ruth."

Sometimes Mr. Miller quite breaks down in the mere mechanism of his verses. He writes for instance :

"Has put forth in the frosts, and far regions
Of snows in the North, and South sands,
Where never the tramp of his legions
Was heard, or has reach'd forth his red hands."

Sometimes he makes use of words from which his modern master would turn with a shudder, and which imperiously demand the remedy prescribed for Marston by Jonson in the *Poetaster*: his worst sins in this respect are *resurrected* (p. 235) and *azaline* (p. 227). We feel that Mr. Miller's admiration for poets so exquisite in their use of metre and language as Swinburne and Rossetti are, ought to have taught him more precision, and that he has not enough native force or fire to make bad rhymes and lines enduring, as they may be perhaps in Blake, or to give currency to grammatical innovations. One whole section of this volume, "Fallen Leaves," is very correctly described by Mr. Miller in an introductory quatrain :

"Some fugitive lines that allure us no more,
Some fragments that fell to the sea out of time;
Unfinished and guiltless of thought as of rhyme,
Thrown now on the world like waifs on the shore."

Would it not have been better, we cannot avoid asking, to have followed Mr. Rossetti in that wise caution which made him refrain from throwing on the world anything but what he believed to be mature?

It is no pleasure thus to criticize a poet who can write so vigorously as Mr. Miller does in his prelude to the "Isles of the Amazons," who is able to invent new measures of

his own, and who can produce such Spenserian stanzas as the following :

"They stand a line of lifted snowy isles
High held above a tossed and tumbled sea—
A sea of wood in wild unmeasured miles :
White pyramids of God where man is free ;
White monuments of God that yet shall be
The mounts of matchless and immortal song
I look far down the hollow days ; I see
The bearded prophets simple-souled and strong,
That strike the sounding harp and thrill the heeding throng."

The poem, "By the Sun-down Seas," from which this stanza is taken, is distinguished by full-breathed and resonant versification. In its matter it is a mixture of Californian descriptions, recollections of London, and Byron-worship, held together only, if at all, by the fervid feeling of the poet, and dedicated to the thought of death. "From Sea to Sea," the next poem in the book, has more of obvious unity. Here Mr. Miller describes a journey by the Pacific Railway from the Atlantic to the shores of San Francisco. There is perhaps too much of strain and effort after picturesque effect in the successive scenes which are presented to the reader, as "the matchless steed of the strong New World" bears him beneath the poet's guidance from west to east across a continent. But the conclusion is both highly imaginative and musical :

"We have lived an age in a half-moon wane !
We have seen a world ! We have chased the sun
From sea to sea ; but the task is done.
We here descend to the great white main—
To the King of Seas, with the temples bare
And a tropic breath on the brow and hair."

We are hushed with wonder, and all apart
We stand in silence till the heaving heart
Fills full of heaven, and then the knees
Go down in worship on the golden sands ;
With faces seaward, and with folded hands
We gaze on the beautiful Balboa seas."

The mixture of iambic and anapaestic rhythms which may be noticed in this quotation is characteristic of the whole poem. By far the longest piece in the book is called "The Isles of the Amazons." A story is told of a young knight who during the Spanish conquest of Southern America is supposed to have grown tired of bloodshed and battle and to have roamed away to the shores of the Amazon River. There he lived as a woman among warrior women who had abjured love, but whom he weaned to softer emotions by the melodies of his singing :

"They turned from the training, to heed in throng
To the old, old tale ; and they trained no more,
As he sang of love ; and some on the shore,
And full in the sound of the eloquent song,

With a womanly air and irresolute will
Went listlessly onward as gathering shells,
Then gazed in the waters, mirrored themselves,
Put back their hair and sighed, and were still.

And they said no word. Some tapped on the sand
With the sandalled foot, keeping time to the sound,
In a sort of dream ; some timed with the hand,
And one held eyes full of tears to the ground,

As the tide of years turned stormy and strong,
With its freightage of wrecks and impossible things,
And a flood of far memories, born of the song,
And borne to the heart on articulate wings."

The strange half-consciousness of womanly life awakened in the Amazons by the minstrel's music, and the gradual yielding of their queen to love, are described in a wonderful dream-melody of verse which suits Mr. Miller's style. But the thread of the romance is too thin to be spun out as he has spun it through more than a hundred pages, with pre-ludes and introductions to each of its five parts. "In the

Indian Summer" has much of that rich and lustrous beauty which was so charming in the *Songs of the Sierras* ; but as a poem it is incomplete. Mr. Miller has not grown in the faculty of developing his theme with vigour and distinctness. A blinding tropical haze, through which we can scarcely distinguish figures or objects, seems to hang over his compositions of this sort. "Olive Leaves," another section of the book, appear to be reminiscences of a tour in Palestine. One or two of these pieces reveal the most amiable of Mr. Miller's characteristics—his sympathy with women in their tenderness and goodness, and his sense of the pathos of children : but the whole collection is even below Byron's *Hebrew Melodies* in adequacy to the subjects chosen for treatment. By far the most beautiful poem in this section is the prelude ; indeed it may be said in passing that Mr. Miller is singularly felicitous in the short introductions which he sets before his studied works of art. I quote the whole of this dedication for its simple beauty and touching truth of feeling :

"O boy at peace upon the Delaware !
O brother mine, that fell in battle front
Of life, so braver, nobler far than I,
The wanderer who vexed all gentleness,
Receive this song ; I have but this to give.
I may not rear the rich man's ghostly stone ;
But you, through all my follies loving still
And trusting me . . . nay, I shall not forget.
A failing hand in mine, and fading eyes
That looked in mine as from another land,
You said : some gentler things ; a song for Peace.
'Mid all your songs for men one song for God.'
And then the dark-browed mother, Death, bent down
Her face to yours, and you were born to Him."

Here, as in many other parts of this book, the personality of the poet emerges in a way to win our sympathy. Mr. Miller has the faculty of making himself felt through what he writes, and we quit his poems with a mingled sense of admiration and regret—admiration of his really great powers, regret that he seems unable to pursue one of two courses in their application, either to strike out a style for himself as original as his own theory of art (pp. 51-54) or else to acquire the principles developed by his masters, by Byron in the treatment of a subject, by Swinburne in versification.

J. A. SYMONDS.

W. Goethe. *Les Oeuvres expliquées par la Vie.* By A. Mézières.
Paris : Didier. 1873.

THE second part of M. Mézières' work begins with the period when the relations between Goethe and Schiller assumed, almost suddenly, the character of intimate friendship which they never afterwards lost ; and includes discussions of *Wilhelm Meister*, *The Elective Affinities*, *Faust*, and a few of the poems belonging to this later period. The volume has, perhaps, less freshness than its predecessor, for while M. Mézières' concern is avowedly only with Goethe's works as explained by his life, the works just enumerated are those which throw more light upon the story of his life than they derive from it. The author is evidently less at home in paraphrasing or commenting upon the *Bride of Corinth* and *Faust* than in reconstructing the features of Aennchen or Lili and in distinguishing the proportion of truth mixed with the idealized exaggerations of *Werther* ; and as it is when he ceases to derive much assistance from the poet's biographers that his criticism becomes most nearly commonplace and insignificant, it is impossible not to suspect that second-hand materials have been too much relied upon throughout ; the author, for instance, is better acquainted with M. St. René Taillandier's *Studies on the Correspondence between Goethe and Schiller* than with

the correspondence itself; and with M. Caro on the Philosophy of Goethe than with the scattered passages in his works which confirm or modify M. Caro's views. He has too much tact to be often wrong, but he seems scarcely aware how very obvious an opinion he is repeating when he observes that the general idea to be gathered from the *Elective Affinities*, *Wilhelm Meisters Wanderjahre*, and *Pandora* is "la nécessité de la privation." He is rather more original in estimating the effect exercised upon his writings by the state of moral isolation in which Goethe's conscientious adherence to this principle tended to place him before and after his friendship with Schiller. The dread of giving hostages to fortune, or contracting any material engagements, which might have the right or power of restraining the inner impulses of self-development or production, fixed the limit either of the duration or the expansiveness of most of Goethe's attachments. Schiller was the only one of his contemporaries with whom he could exchange ideas on something approaching to a footing of equality, without being called upon in any way to alter the normal course of his life, or to pledge himself to any sentiments that did not arise naturally out of a close interchange of mental good offices. The friendship which had so excellent an effect in stimulating the productive energies of both poets was originally and chiefly a friendship between the poets rather than between the men. M. Mézières doubts whether, except in the prison scene in *Faust*, Goethe ever displays the highest dramatic power, and it is intelligible why he should always fail to do so in cases where the hero is the mouthpiece of his own anxiety not to allow another life to become too closely and influentially bound up with his own, for it is by the conflicting action of such intimate moral ties that most tragic effects are produced. He dwells at some length upon the contrast between Schiller's aspirations after realizing the Ideal and Goethe's bent towards idealizing the Real, and he sees in the fortunes of the Weimar theatre, as well as in Wilhelm's experiences as an actor, proof of the insufficiency of merely æsthetic standards to direct or satisfy a miscellaneous public. He is careful not to exaggerate what seemed the anti-popular, unpatriotic aspects of Goethe's political attitude, and traces it to his consistent conviction that it was impossible to act with effect upon masses, that individuals alone are perfectible, and that as each individual has to work out his own perfection, the greatest man has no higher duty to his neighbour than to lead his own life as perfectly as possible, giving thereby an example to his contemporaries, and in the case of an artist, also works of permanent advantage for the æsthetic education of the race. Of the *Bekenntnisse einer schönen Seele* he remarks that Goethe's sympathies were excited by the doctrine which gave his heroine the same mental calm and the same strength for renunciation as were the objects of his own endeavour, while his admiration was scarcely on the whole diminished by the circumstance that he believed her own faith and imagination to be the only supernatural powers from which she derived aid and inspiration; her own opposite conviction being a mere illusion and the one point on which her wisdom was less realistic than his. Perhaps the printer is answerable for the fact that Fräulein v. Klettenberg's name is seldom spelt twice alike. M. Mézières criticises with some justice the reception which Madame de Stael met with from the two great lights of the Weimar Court. It is easy to believe that her voluble conversation gave promise of all the misconceptions perpetuated in her book, but even where she was least able to understand, a generous desire to do justice *à tort et à travers* is so obvious that one cannot but wish her foibles had been tolerated with good-

humoured superiority instead of exciting as much consternation as an invasion in force by the French army. It would have been impossible to find a point of vantage for Madame de Stael over either Napoleon or Goethe, if both had not failed in courage when the time came to encounter what was not after all a very formidable wit. Schiller spoke French with difficulty, but Goethe had no reason to shun the encounter, for he convinced the visitor that he had an "esprit prodigieux en conversation . . . s'il était Français, on le ferait parler du matin au soir." No doubt the prospect was not seductive, but if he had turned his very just and acute criticism of Madame de Stael's conversation "comme femme et comme Française" into an epigram, he would probably have found her able to appreciate it. The epigrammatic form is all that M. Mézières thinks wanting to excuse the introduction of the many valuable sayings copied from his note-books to swell the bulk of the last part of *Wilhelm Meister*. The commentary on *Faust* is the weakest point in the work, and ends with the not very intelligent complaint that *Faust* feels and expresses no remorse either for the sins of his age or youth. It is at least as obvious that the theory of sin has no place in Goethe's philosophy as that the theory of renunciation has a conspicuous one. On the whole M. Mézières' book is more likely to be serviceable to his countrymen as an introduction to, than as a substitute for the study of the poet's own works.

EDITH SIMCOX.

LITERARY NOTES.

In the *Revue des deux Mondes* (Aug. 1) M. Rambaud has an article on the legend of Peter the Great in the popular songs and tales of Russia, which is full enough to be interesting, though very far from exhaustive; he touches on the question what guides the popular muse in celebrating and the popular memory in retaining one characteristic incident or trait rather than another, but he does not attempt to fix the comparative age of the different songs preserved by tradition, the only way in which the history of the legend could be made to throw fresh light upon the growth of the *chansons de geste* of Charlemagne, with which he compares it. One of the best of the songs tells how the Tsar wrestled with a dragoon, who craved as a reward for not abusing his victory "to be allowed to drink brandy without payment in all the taverns of the crown," a conclusion which the memory of Goethe's *Sänger* warns us not lightly to condemn as prosaic. In the same number some *Stances Satiriques* by Henri Blaze de Bury are noticeable not so much for novelty of conception (for the immorality of well-born women is an old theme with satirists), as for the fluent energy and *entrain* of the verse, especially on the last page.

Mr. Herbert Spencer's paper in the current number of the *Contemporary* is mostly occupied with a restatement of the dangers that may be expected to follow from sentimental or humanitarian interference with the principle of natural selection, while an article by Mr. George Darwin in the same review seems to advocate legislation *in aid* of that principle. The same line having recently been taken by Mr. Greg and Mr. Galton, it is perhaps time to ask whether the doctrine of evolution does not offer a way of escape from the supposed necessity of "that natural process of elimination by which society continuously purifies itself." To kill off the weaker members of a community does not add positively to the strength of the survivors, while it might be maintained that, as all powers grow by exercise, the strong who undertake the protection of the weak will become in the progress of evolution, stronger than if they had no weak to protect; while on the other hand, the naturally weak may, if the conditions of life can be made sufficiently favourable to them, develop powers that after a few generations will seem to have been worth transmitting. At any rate the survivors in the natural struggle for existence will not become increasingly "fit" for the task of improving the specific type by learning to rely

upon a quasi-mechanical process—only perfectly natural while it is unconscious—which can but testify, at the best, to their comparative, and not to their positive approximation to specific excellence.

The *Fortnightly* has an interesting article on Poliziano by Mr. J. A. Symonds; the translations from his Italian poems are so good that those who are so inclined may conclude from them, without injustice to the originals, that the reviewer's estimate of his author errs, if at all, on the side of partiality.

Unsere Zeit for July and Aug. 1 has a very interesting and *gründlich* account of the discovery, importation, and cultivation of the chinchona tree. The "Marginal notes on Goethe's Works" by different writers given from time to time in *Im Neuen Reich* are worth the attention of zealous students of his works, or the still more voluminous mass of miscellaneous Goethe literature.

We have received *The Last Knight* (Hurd and Houghton), translated by T. O. Sargent from the German of Anastasius Grün (Count Auersperg). It is a quasi epic in a cycle of ballads, fluent, spirited, and if generally obvious, seldom false or vulgar, on the adventurous career of Maximilian of Austria. The translation is worthy of the original.

A new work of Victor Hugo's is promised for the spring: the subject is taken from the history of the Revolution, and the title, according to the *Athenaeum*, will be *Quatre vingt treize. Premier récit; la guerre civile.*

We have reason to believe that Mr. Thorold Rogers is the author of the lively and spirited imitations of Horace now appearing in *Temple Bar* under the signature of Edwin Heron.

A letter from Dr. Schliemann in the *Allgemeine Zeitung* (Aug. 5) describes the discovery in the course of his excavations of a treasure which, whether that of Priam, as he of course hastens to conclude, or not, appears to be of great value and interest; he mentions shields and vessels of different sizes made of wrought, unalloyed copper, silver vases, a flask and cups of pure gold, ornamented gold fillets and pendants, bracelets, and a large number of gold earrings, buttons, and other trifles. The silver and copper vessels are in some cases joined together as if welded by fusion—when Troy was burnt.

Art and Archaeology.

Sacchi's Pictorial Notices of Cremona. [*Notizie Pittoriche Cremonesi*, raccolte da Federico Sacchi.] Svo. Cremona. 1872.

This work is alphabetical, and divided into four parts, of which the two first are by Mr. Sacchi, while the two last are extracts from the accounts of the Cremona cathedral printed from an old MS., and documents from the Cremonese archives put together by Mr. Ippolito Cereda. In the course of their labours the compilers publish at length much that has been published before, as an instance of which the notes on Girolamo da Cremona may be cited, which are extracted to the extent of fifteen pages from the last edition of Vasari. What they add to our stock of knowledge is perhaps less than we should expect from a large octavo of 360 sides.

The first concrete fact at which we arrive in the space of thirty opening pages is that Sofonisba Anguissola died in 1626, and not, as historians usually assume, in 1620. Much patience and research are displayed by Mr. Sacchi in establishing this fact; yet we may ask whether the result was worth the cost in time, in labour, and in print. Further on, we find our knowledge increased by small and not uninteresting contributions to the history of the lives of the Bembos, Boccaccinos, and Campis; and an entire chapter giving intelligence of Marco Marziale, who, though not a Cremonese,

painted much for Cremonese churches. The only fault we have to find with this portion of Mr. Sacchi's book is its want of condensation. Descriptions of pictures, lives, and annotations succeed each other without producing that clearness in the reader's mind which they ought to create; and the confusion is not removed by the casual introduction of appendices containing matter previously unnoticed, and thrust in at last because it was discovered too late to be introduced before.

Amongst the documents of Mr. Cereda which are cursorily described in a title-page as hitherto "unedited" we find the contract of Pordenone for the frescoes of the Cremona cathedral, printed as long since as 1823 by Count Mánago; others relative to Bembo and the wall paintings of the *castello* of Pavia, which appear at full length in Rosmini's History of Milan published in 1820. But besides these we have, it may be owned, new documents of interest, such as Boccaccino's will proving this artist's existence to have extended beyond the year 1524, contracts illustrating the life of Camillo Boccaccino, contracts proving that Soiaro was born at Cremona, and statutes showing the organization of the painters' guild at Cremona in 1470.

To the Cremonese this book will probably be welcome, as it gives them an account in their own language of many pictures which have been removed by speculators from their churches and public edifices. It will be further welcome as extending their acquaintance with men of whom Cremona may still be proud. As a book of reference also these *Notices* will have their use. But they do not and never will fill the place of a standard work. J. A. CROWE.

LA COMMISSION DE LA TOPOGRAPHIE DES GAULES.

WHEN the *Academy* noticed the death of the ex-Emperor Napoleon III. "as an author," no mention was made of scientific institutions which have their origin in the archaeological fancies of the historian of Julius Caesar, viz. the Commission for the Topography of Gaul and the Celtic Museum at St. Germain-en-Laye. Both have fortunately survived the Empire, and they deserve to be made known to British scholars. Let us here say a few words of the former.

The "Commission de la Topographie des Gaules" was established in July, 1858, for the study of national geography, history, and archaeology up to Charlemagne's times. It was composed as follows: MM. de Saulcy (président), Amédée Thierry, Guignault, de Wailly, Alfred Maury, Colonel Blondel, Lieutenant-Colonel de Coynart, Chéruef, Alex. Bertrand, Alf. Jacobs. In later years MM. Viollet-Leduc, General Creuly, Léon Renier, Anatole de Barthélemy and Lartet, all historians or antiquarians of note, were added to the original members of the Commission.

It is to this Commission that we are indebted for the prosecution of the excavations at Alise-Sainte-Reine, the light thrown upon the vexed Alesia question, and the important discoveries made at that place, not to mention many other researches and excavations which have already been made or are still in progress throughout France. But one result generally follows when sovereigns aspire to take an active part in scientific undertakings: and people anxious to cover personal ambition under the show of zeal for archaeology turned into would-be antiquarians to attract the favourable attention of an antiquarian Emperor.

Beside those recorded in history, there are many places in France to which, rightly or wrongly, the name of Caesar remains attached—Caesar's Camp, Caesar's Ditch, &c. The antiquarians were equal to the occasion and poured forth essays and controversial papers with great fertility, to determine the traces of Julius Caesar. Local rivalry was soon imported into the matter. Cities or villages (what a patriotism for the descendants of the old Gauls!) contended for the honour of having been burned down by the Caesar of old. The modern Caesar, who was not without a certain kindness

in these matters—and who did not like contradiction—was soon won and finally led by those who invariably found he was in the right.

The "Commission de la Topographie des Gaules" had their own opinion on some archaeological points. They would not place Genabum at Gien, Uxellodunum at Puy-d'Issoud, &c. The Emperor, by little and little, set them aside, and in the last years of his reign he altogether ceased to consult them: some members of the Commission silently retired. The Commission nevertheless continued their work, and still gave a vigorous impulse to Celtic and Gallo-Roman studies. All the antiquarian societies of the provinces and the chief French scholars now correspond with them: important excavations are being made at many points under their direction, and the museum at St. Germain owes to them a large portion of its rich collections.

The excavations at Alise, those at Mont-Beuvray, the controversy about Gaulish wall-building, the determination of the ancient highways are their principal achievements. One may confidently say that with modest resources the Commission have greatly extended the conquests of Gaulish archaeology, and that it is now one of the most important centres of research in the wide field of Celtic antiquities.

Up to the present time the Commission have published:

1. An oro-hydrographical map of Gaul in four sheets. This is a splendid *carte muette*, which has been recommended by the Ministry of War for military schools and for strategical studies, and from which reductions are now being made for public schools by order of the Ministry of Public Instruction.

2. A map of Cæsar's campaigns, now out of print.

3. A map of Gaul under the proconsulate of Julius Cæsar in four sheets, identical with the oro-hydrographical map already mentioned, with the addition of the nomenclature and colours for boundaries, &c.

4. Three parts of a *Dictionnaire Archéologique de la Gaule, époque celtique*, viz. forty-two 4to sheets and forty engraved folio plates.

The text goes as far as the letter D. It contains under their ancient form the names of places mentioned by the ancients, and gives the text of references epigraphical as well as historical; most of them have been identified with modern places, and the Commission give their arguments for each name. It gives next, but under their present form, the names of places where megalithic monuments (circles of stones, standing-stones, &c.) are still on view, and the names of those where antiquities of any kind (stone or metal implements, arms, coins, &c.) have been discovered. It is in fact a *résumé* of the archaeological history of each locality. Some of the articles are extensive and interesting monographs; e.g. those on Abbeville and Saint-Acheul, places well known by the implements found in their alluvial beds, and that on Alise-Sainte-Reine, which, in our opinion, is satisfactorily proved to be the celebrated Alesia of old. In the first part, the Commission had ventured to give etymologies of names of places which were in more than one instance objectionable: in the second part, they have left etymologizing aside and have wisely confined themselves to archaeological ground. Their business is to produce *facts* which others may work into history or philology, not *opinions*; and etymologies are opinions, however certain they may appear.

The plates of these parts are beautifully got up; they represent stone implements found at St. Acheul, Abbeville, and the Périgord caverns, views of the Gavr Inis tumulus, and of its strangely-decorated walls, the Gaulish coins, *facsimiles* of the Gaulish inscriptions found in France, Gaulish arms and ornaments, &c. It is indeed nothing less than an illustrated encyclopædia of Gaulish life.

5. A map of Gaul indicating the site of dolmens and megalithic monuments.

6. A map of Gaul indicating caverns which have been inhabited in prehistoric times.

7. A preliminary map of Gaul in the fifth century A.C., issued for private circulation, to be communicated to local scholars and antiquarians who correspond with the Commission, and to call forth their observations on the highways, &c.

8. Four sheets of instructions (with plates) for the assistance of correspondents of the Commission in classifying arms, coins, and jewels, and in interpreting ancient itineraries.

Moreover the Commission are preparing a map of Gaul showing the geographical distribution of the Gaulish tribes; and when they have finished the Dictionary of Celtic Archaeology, which is destined to be a complete repertory of the antiquities of Independent Gaul, they will begin a Dictionary of Gallo-Roman Archaeology on the same plan, to comprise the long period extending from the reign of Augustus to the Frankish kings.*

H. GAIDOZ.

NOTES ON ART.

The new Belgian journal *La Fédération Artistique* offers temptation to subscribers in the shape of prizes consisting of large photographs, worth five francs each, taken from the works of modern Belgian artists. Two subscriptions give a right to one of these prizes (*primes extraordinaires*), and subscribers are allowed to choose from a series of twenty-five photographs. Besides these *primes extraordinaires*, three gratuitous prizes representing the amount of the subscription in their value will be given annually to all subscribers.

The present list of prizes comprises: *Plage de Scheveninghe* and *L'enfant malade*, by Bource; *Partie de Campagne* and *L'enfant trouvé*, by Boks; *Indiscrétion* and *D'Anvers à Tamise*, by Cap; *Carnaval*, by Franck; *Trop précoce*, by Heyermans; *Hiver* and *Vue prise à Zwynrecht*, by Lamorinière; *Céramique*, by Lagye; *Taverne hollandaise au XVII^e siècle*, by Moermans; *La vendeuse de statuettes*, by Ooms; *Pêcheurs à la ligne*, by Quiton; *Famille italienne*, by Swerts; *Les cadeaux de nocces*, by Van der Ouderaa; *Intérieur d'écurie*, by Van Kuyck; *La petite tricoteuse* and *Un froid de chien*, by Verlat; *Promenade*, *La Place de Meir au XVIII^e siècle*, and *Par droit de conquête*, by Vinck; *Partie d'échecs*, by Webb; *Clair de lune* and *Cascade*, by Wust.

In the first instance two photographs from Alma Tadema, "L'amateur de tableaux" and "L'amateur de sculptures," were included in this list, but the choice of subscribers falling chiefly on these the copies have been exhausted and the two pictures by Charles Verlat substituted for them.

The Royal Academy of Belgium has recently bestowed its quinquennial prize for literature on M. Édouard Fétis in consideration of his writings on the Fine Arts. M. Fétis is chiefly known by his contributions to *L'Indépendance belge*, but his learned work on *Les Artistes Belges à l'Etranger*, reprinted in 1857 from the *Bulletins de l'Académie Royale de Belgique*, introduced him to most students of art. His latest work, *L'Art dans la Société et dans l'Etat*, which appeared in 1870, has met with less attention in England than ought to have been accorded to it. Belgian writers are indeed too often overlooked by our critics.

The *Gazette des Beaux-Arts* for August contains: 1. An article by M. Sully Prudhomme on "Quelques œuvres décoratives inédites." These modern decorative works adorn the house of M. Paul Sédille, a French architect, and are chiefly symbolical representations in sculpture and painting of various abstractions, such as Nature, Poetry, Music, Architecture, &c. M. Prudhomme is so enchanted with the dignity and beauty of these representations that he cannot restrain himself to prose in describing them, but breaks out into enthusiastic verse. Speaking of two caryatides of Nature and Tradition executed by M. Chapu which are to be seen in the vestibule of the mansion, he tells us "en cherchant à les décrire je sens l'harmonie de leurs lignes rythmer sournoisement ma phrase, et comme, au demeurant, la poésie ne saurait être pire en vers qu'en prose, je m'abandonne sincèrement au lyrisme et je rime un sonnet en leur honneur." Fancy an English or German critic allowing the harmony of a work of art "rhythmer sournoisement sa phrase" or abandoning himself sincerely to lyricism! The quality of M. Prudhomme's verses, we feel obliged to state, offers no excuse for this abandonment.—2. The pictures of the German schools of painting in the Belvedere Gallery at Vienna are criticised by M. Clément de Ris in a notice

* The publications of the Commission which are not out of print, or intended for private circulation, may be had at the "Librairie Militaire de Dumaine" in Paris.

continued from a previous number. M. de Ris considers that the works at Vienna by Albrecht Dürer are far superior to those at Munich, an opinion in which we cannot agree, remembering that Dürer's grand paintings of the Apostles, universally acknowledged to be the masterworks of his art, are in the Munich Gallery.—In article 3, M. Dumont gives us a learned disquisition on the "Vases peints de la Grèce propre" as distinguished from those found in Italy of Greek origin which are far better known. The article is to be continued, and is illustrated by several interesting outline drawings of classic subjects.—4 is devoted to an *In Memoriam* review of the late Louis Vitet, one of the best art writers and critics of France.—5 is entitled "Causerie sur le Château de Blois" and is by M. Lechevallier-Chevignard. The Causerie is enlivened and rendered more instructive by several woodcut illustrations and by an effective etching by Rochebrune of a picturesque corner of the old château.—6 considers "La Gravure au Salon," which we may suppose concludes the notices of the Salon of 1873. The writer, M. Paul Leroi, suggests to M. Emile Galichon, who is at the head of the Société Française de Gravure, a French Exhibition in Black and White such as has already been held in London and New York. It is strange certainly that France, whose engravers and aquafortists are certainly not inferior to those of any nation, should be behindhand in such an exhibition.—7. M. H. Havard continues his "Exposition rétrospective d'Amsterdam."—8. A notice by M. Olivier Merson of the Exposition at Bordeaux.—9. M. Louis Decamps reviews *Le Frans Hals de MM. C. Vosmaer et W. Unger*, a work to which we have already drawn the attention of the readers of this journal. One of Unger's powerful and characteristic etchings from Hals' picture of "The Banquet of the Officers of the Arquebusiers of St. George in 1827" accompanies the text. The *Gazette* is worth buying this month for this etching alone.—10. A review by M. Louis Desprez of *Les Collectionneurs de l'Ancienne France, Notes d'un Amateur, par Edmond Bonnafté*.

Dr. Alfred Woltmann in his "Streifzüge in Elsass," continued in the present number of the *Zeitschrift für bildende Kunst*, gives an interesting history of Colmar, its museum and its great fifteenth century master Martin Schongauer, who was the predecessor and in some respects the teacher of Albrecht Dürer. Unfortunately for students Martin Schongauer's paintings are seldom to be met with except in his native town of Colmar, so that it is difficult for those who have not, like Dr. Woltmann, made excursions into Elsass to judge of them, but his beautiful engravings and etchings are less difficult of access, and reveal the mind of the artist more fully perhaps than his larger works in painting. There is a splendid collection of his prints in the British Museum. The *Zeitschrift* gives us two woodcuts from photographs of the wings of an altar-piece in Colmar by Schongauer and a worn-out woodcut from Schnaase's *Geschichte* of the "Madonna im Rosenhaag," Schongauer's most celebrated picture.

The New South-East Court of the South Kensington Museum has now for some time been open to the public, and a short account of the objects it contains has been added to the general guide-book. A detailed descriptive catalogue of the architectural and monumental sculpture has also been prepared by Mr. J. H. Pollen, and is now "under revision." Truly the administration of the South Kensington Museum deserves more gratitude than it is likely to get for its labours in carrying out such works as this. "Il est impossible," as is even owned by a French critic, "de mieux comprendre et de mieux remplir les devoirs d'un musée vis-à-vis du public."

The *Portfolio* for August contains an interesting article by Mr. Simcox on "The Greek face before Phidias," in which it is argued that the remains of archaic Greek art indicate "a transformation of the Greek face corresponding to the transformation which we know took place in the Greek mind."

A good, but not very interesting etching by Legros, a lithograph from Andrea del Sarto's well-known portrait of himself, and two small and charming etchings by the editor, Mr. Hamerton, are the illustrations of the month.

*New Publications.

- ALBERT, P. *La Littérature française au xvii^e siècle.* Paris : Hachette.
- BERGMANN, E. v. *Beiträge zur muhammedanischen Münzkunde.* In Comm. Wien : Gerold's Sohn.
- CONZE, A. *Zur Geschichte der Anfänge griechischer Kunst.* In Comm. Wien : Gerold's Sohn.
- CURTI, P. A. *Pompei e le sue rovine.* Vol. I., II. Milano : Sanvito.
- FURNESS, H. H. *A New Variorum Edition of Shakespeare.* Vol. II. Macbeth. Philadelphia : Lippincott & Co.
- GARUCCI, R. *Storia dell' arte cristiana nei primi otto secoli della chiesa, corredata della collezione di tutti i monumenti di pittura e scultura incisi in rame su cinquecento tavole ed illustrati.* Fasc. 14-17. Prato : Giachetti.
- LEGER, L. *Le Monde slave.* Paris : Didier.
- OUDRY, L. *De l'histoire et de l'authenticité de la fresque de Raphaël ; le Père éternel bénissant le monde, provenant de la Magliana.* Paris : Imp. Goupy.
- RAYMOND, P. *Cartulaire de l'abbaye de Saint-Jean-de-Sorde, publié pour la première fois sur le manuscrit original.* Paris : Dumoulin.
- RUSKIN, John. *Modern Painters.* New ed. (Reprint.) Smith and Elder.
- STONE, J. B. *History of Lichfield Cathedral.* Longmans.
- WEIGELT, G. *Die nordfriesischen Inseln vormals und jetzt. Eine Skizze des Landes und seiner Bewohner. (Zweite umgearbeitete Auflage.)* Hamburg : Meissner.

Philosophy and Science.

A *Budget of Paradoxes.* By Augustus de Morgan. [Reprinted, with the author's additions, from the *Athenæum*.] London : Longmans. 1872.

It is an opinion current among librarians, that there is no such thing as trash : that the most foolish unconnected flysheet treating of nothing at all should in all cases be preserved and bound up with other such flysheets, not in view of any possible future investigator to whom it may be as gold among quartz, but because it is right that this thing should be done. No doubt a very great good comes of this absolute universalism in the conscience of all kinds of collectors. But still, for the purposes of the outer world, it remains true that there are books and books. It is obvious of some kinds of literary or scientific work that if A. B. had not done it, C. D. would have taken his place ; and that at no loss to the world, even though C. D. were a person of mean capacities. The bricklayer who was to lay a certain course of bricks may fall off a ladder and yet the house be no worse in the end ; while the skilled mason who carves a gargoyle may leave something which represents not merely his day's wages but himself (invaluable) so long as stone shall last, and therein something which no other man could exactly produce. The book before us is essentially a gargoyle. It is by very far the most individual book of the age—individual, not merely in its own singularity as a book, but as presenting with a marked degree of clearness and exactness the personality of one who was never quite a man among men, but always a man among other men.

The paradoxes herein treated of are those set forth by people ignorant of mathematic, who think themselves qualified to show such as are not ignorant where they have gone astray. It might well have been conceived that a large book on such a subject would have been the dullest of the dull ; that it would appeal only to mathematical readers, and even to them only for so long a time as the follies exposed in it were of recent interest. No anticipation could be more thoroughly wrong. The fault of the book is in the direction of a too incessant playfulness ; it is excellent grotesque, which is only to be borne because it is so clearly an outwork of the beautiful. For while the pretenders here slaughtered are for the most part indeed nobodies, whose only use is for an example and a warning ; while the jokes (with some

notable exceptions) are small jokes, and such as we like chiefly in our idiotic moods; while even the character which so clearly shows through these pages, great and lovable as it is, is yet rather singular than pre-eminent, a study for comparative psychology rather than an ideal for the world to come; while all this is true, the book is an endeavour and a stretching forth towards right thinking and a protest against wrong thinking, which is of infinite solemnity and weight to us of this present time. For we have no right to conclude that these paradoxers upon whom the *Budget* has fallen have been sinners above all that prate; we ought rather to learn that except we mend our ways we shall all likewise perish.

The word *paradox* is unfortunate; it includes under one name a rare thing and a common thing, and it brings upon the rare thing which is good some of the discredit that belongs to the common thing which is bad. "A paradox is something which is apart from general opinion, either in subject-matter, method, or conclusion." The "general opinion" must be that of people who have an opinion; not of all people indiscriminately, including those who have never considered the subject. The common form of paradox consists in ignorance of the subject-matter, powerlessness in the method, or incapacity to understand the conclusion. The rare form of paradox is an addition to the reasonable part of general opinion, which happens to contradict some of the unreasonable part. The older use of the word was strictly impartial, and it might be applied without any want of respect; De Morgan says the change came in the seventeenth century. It is certain that at present the epithet is a disparaging one; the overplus of wrong thoughts included under it has slowly sapped the moral constitution of the word, and it now sometimes stands in the way of a right appreciation of the nobler form of paradox.

For as it is hardly possible to lay too great a stress on the weight and worthiness of thought which diverges from the general opinion on account of its greater strength, which by its continual work in the world has in fact built up the present mind of man; so it is before all things necessary here to distinguish carefully from it that other divergence which comes of weakness and goes to destruction. It is true in all departments of human action that reform is the most precious and sacred prerogative of a citizen; but in order to have that prerogative one must be a citizen, not an alien; and one must act like a citizen in a legitimate and constitutional way. A man who should find an error in the value of π —even in the six hundredth place—would have all honour paid him as a true reformer by the brotherhood; but to this two things are necessary: he must not be ignorant of trigonometry, and he must work out the calculation. The belief of the weak paradoxer, on the contrary, is that things can be done by a flash; that a discovery is to start from his ignorant and untrained mind like Pallas from the brain of Zeus. We know, of course, that the great discoveries—the true and noble paradoxes—have always come from men who by long prenticeship had so far mastered the tools forged by their fathers that they were not tied down to one particular way of using them; we know that Jove's head cannot crack with Minerva unless he have previously swallowed Metis. The time taken by distant discoveries—gravitation, for instance—is foreshortened by perspective; but we have good cases immediately before our eyes. In Maxwell's theory of electricity we have as instructive an example of the paradox of right thinking as might well be; a conclusive victory over rival doctrines won by twenty years' patient proving (and improving) of the weapons wherewith previous battles had been gained; a testimony to all time that genius is a capacity for taking an infinite amount

of the right sort of trouble. But your paradoxer of the *Budget* will master by a *coup d'état* the republic of science, which allows no masters, but proved comrades only; he will climb by the back stairs into the house of knowledge, that has no back stairs. If there be any reward in the penal incurable blindness that follows such sacrilege, verily he has his reward.

And here is another important difference between the two kinds of heretics. The strong heretic is so because his ideas are living and plastic, and have an internal motion whereby they adapt themselves continually to new work; so that no man is so perfectly open to conviction as he is. But the weak heretic is so from the very narrowness of his range, which cannot grasp even established demonstration; he is hermetically sealed against all possible argumentative germs that might bring into his mind the lower forms of life.

In drawing this sharp distinction between two habits of mind, however, we must not forget what the *Budget* is specially calculated to impress upon us in a terrible and alarming manner; the exceedingly gradual transition from one to the other, and the possible co-existence of both in the same person in regard to different subjects. De Morgan has some very good remarks on the value of a study of logic in helping us to extend the habits of right thinking which we have got by practice in one subject over the whole range of our knowledge. A good specialist who is also a good logician can hardly be betrayed into gross paradox out of his proper range; for his special knowledge will make him cautious about facts, and his logic about conclusions. No man could have greater advantages in this respect than the author of the *Budget*, who had himself made important additions to logic, and was an excellent mathematician. And yet—this is the solemn warning of the book—he has in one case fallen into a sin to which we are all tempted, whether by the uncompromising precepts of theological systems, or by the insidious seductions of scientific text-books; the sin of making assumptions and then hiding from ourselves that they are assumptions and that we have no right to believe in them. Apropos of "From Matter to Spirit," he says that he refers certain phenomena "either to unseen intelligence or something which man has never had any conception of." This apparently suspended judgment involves and hides the assumption that the said phenomena cannot possibly be referred to certain well-known and commonly conceived things—the art of the conjuror, and the delusion of contagious excitement. This enormous assumption is—of course unconsciously—introduced and hidden under a brilliant display of candid impartiality and cautious scepticism. We point to this, not as throwing a stone thereat; but desiring that it should indicate the great and serious importance of the *Budget of Paradoxes*. To sum up, this is a book that should be read by those who care about circle-squarers and all manner of jokes, mathematical and other; by those who care to make the acquaintance of Augustus de Morgan, which it is well worth while to do; but above all by those who care to be led into right thinking and warned from wrong.

W. K. CLIFFORD.

The Fertilization of Flowers by Insects and their Mutual Adaptation for that Function. [*Die Befruchtung der Blumen durch Insekten und die gegenseitigen Anpassungen Beider. Ein Beitrag zur Erkenntniss des ursächlichen Zusammenhanges in der organischen Natur.* Von Dr. Hermann Müller.] Leipzig: Engelmann.

THE old idea, once a favourite topic with poets and divines, that the beauty of the external world was intended exclusively to promote the enjoyment of mankind, has suffered many severe shocks from the rude onslaughts of modern science. The discovery that the earth was a habitable and

inhabited world countless ages before man appeared upon the scene might be explained on the hypothesis that it was thus becoming prepared for the advent of the masterpiece of creation; the egotism of the human species might even survive the discouraging fact that gems of purest ray serene were born in the unfathomed caves of Silurian or Devonian oceans, and that flowers of the most perfect beauty were born to blush unseen in the midst of oolite or cretaceous deserts. The un pitying theory of the survival of the fittest however points relentlessly to the conclusion that man after all is not the *raison d'être* of anything he sees around him except himself; that "jedes für sich" is the rule of Nature, that every organic being is contrived so as to have the best chance of supplying its own wants, and not for the sake of administering to the wants of others; in fact that the philosophy of science must, for the future, be an application to the realms of Nature of the principle of self-love, such as even a Hobbes might accept.

The volume before us, though full of minute details of empirical observation, is an important contribution to this philosophy of science. The main fact which forms the ground-work of Prof. Müller's observations is not new. Towards the close of the last century one of the keen observers of nature with which that period abounded, C. C. Sprengel, in his *Das entdeckte Geheimniss der Natur im Bau und in der Befruchtung der Blumen*, pointed out that a number of the different forms which the flowers of plants assume are obviously contrived for the purpose of attracting insects and of enabling them to carry away the pollen which is required to fertilize other flowers of the same species. This line of research, which had been almost lost sight of since Sprengel's time, has been renewed in our own day by Darwin in this country, the writer of this volume and Hildebrand in Germany, Axell in Sweden, and Delpino in Italy; the first-named naturalist reducing the sum of his observations to the well-known aphorism that "nature abhors perpetual self-fertilization." The whole of that complicated structure which we call in ordinary language the "flower" of a plant consists, in fact, of the reproductive organs enclosed in a number of envelopes which have for their purpose not only the protection of the essential organs within them, but the attraction of those insects or other animals which are necessary for the fertilization of the ovules.

The contrivances for effecting this purpose, though infinite in number and variety, may be classed under two principal heads, colour and scent. A large number of insects obtain their food chiefly or entirely from the juices of flowers; and the necessity for cross-fertilization renders the visits of these insects as indispensable to the life of the flower as to that of the insect. To enable them to find this food the juices are very commonly scented; a field of clover or beans will attract all the bees in the neighbourhood from a great distance; and if carefully watched the bees will be found not only to carry off with them the honey, but to transfer also a portion of the pollen from flower to flower. Where the juice of the flower does not happen to be scented, the bright colour of the corolla commonly serves the purpose of attracting insects from a distance. Different insects and other small animals have apparently very different ideas of beauty as regards the form and colour of the flower. Humming-birds are said by Delpino to have a penchant for scarlet and for flowers with long wide tubes; hence in countries where there are no humming-birds, as our own, scarlet flowers or those with long wide tubes are very rare among native plants.* The largest-flowered of European plants,

the peony and several species of convolvulus, are visited chiefly by large beetles allied to the cockchafer; and as we proceed further north to climates too cold for this description of insect, the corresponding flowers also disappear, not being able to mature their seeds without assistance. When fertilization is effected by very small insects, something more than a large conspicuous corolla is required to show the visitors the way to the nectary or receptacle for the honey; hence arises the variegation of flowers, the bands or patterns of colour being almost invariably so arranged as to direct the insect in the way it should go in search of food. As nature seldom provides two contrivances concurrently for the same purpose, we find that variegated (wild) flowers are seldom scented; while the most odoriferous flowers are almost always uniform in colour; the evening-primrose, which opens its scented flowers only in the dusk, requires no variegation to direct the night-flying moths to the scented nectar.

Illustrations of all these laws have been observed by the naturalists we have mentioned, and have been collected with great industry in this volume by Dr. Müller, himself no idle worker in the same field. According to the theory of natural selection those descendants from a common ancestor which vary from the others in any direction that tends to increase their attractiveness to insects or to secure a more certain transference of the fertilizing pollen from one flower to another, will have the best chance of survival and of perpetuating and increasing this peculiarity in their progeny. Dr. Müller has himself examined, or records the observations of others on, nearly four hundred species of plants, and describes the structure of the reproductive organs and of their envelopes, with especial reference to their adaptation for self-fertilization or for cross-fertilization, giving in each case a list of all the insects which have been observed to visit the flower, and illustrating his description, where necessary, by admirable woodcuts. This portion of the subject is more or less familiar to most botanists; what Dr. Müller has made peculiarly his own study is the tracing out of the same principle, applied to the visiting insects, as previous observers have noted with respect to the visited flower. By the same principle of natural selection those insects which display to the greatest perfection contrivances for extracting the honey of flowers or for carrying away the pollen—the latter serving in some cases for their own food, in others for storing up in their nests as food for the larvæ or young—will stand the best chance of perpetuating offspring provided with the same peculiarities; and we find here abundant descriptions and drawings of the various forms which these contrivances assume in different classes of insects.

In his concluding chapter Dr. Müller discusses the origin of these phenomena, and declares himself a firm adherent of Darwin's theory, finding the explanation of every special contrivance on the one side or the other in the principle to which we have already referred. He therefore vigorously combats the teleological views of Sprengel and Delpino, the latter of whom especially, while accepting the theory of evolution or descent with modification, yet disputes the soundness, or at least the adequacy, of the other theory usually associated with it, that of natural selection. He recurs, in fact, to the pre-Darwinian doctrine of design to account for the phenomena which furnish the subject of this work, or, as Müller represents him: "Nature is with him a being endowed with human thought, which has invented definite forms of flowers leading necessarily to cross-fertilization; and this is then completely carried out by the employment of different parts of plants for the same purpose. This creator of flowers, far exceeding in talent the cleverest man, has pre-

* Among our common wild flowers it would be difficult to name any of a true scarlet hue except the poppy and the little pimpernel.

destined certain forms of flowers for certain insects, and certain insects for certain forms of flowers, and has contrived each one to fit the other." The reasons which may be adduced against this theory would be simply a repetition of the main argument of Darwin's *Origin of Species* and *Variation of Animals and Plants under Domestication*. The believer in the doctrine of natural selection finds it more consonant with the facts which he sees around him to assume that Nature—if it is possible to personify the idea—works, not by preconceived notions and prearranged harmonies, in which case we should expect to find everything perfect, without discord, waste, or incompleteness; but rather, as a human workman would act, tentatively; making small improvements here and slight adaptations there; every form of life, in fact, constantly approaching a more and more perfect adaptation to the circumstances in which it is placed, a perfection which, however, is never absolutely attained.

There are few regions of scientific inquiry more easily open to any observer resident in the country and possessed of ordinary powers of observation than those connected with the fertilization of flowers, and none which would more amply repay careful research by leading to further insight into the still hidden laws which govern the origin of species. To all workers in this field Dr. Müller's elaborate and in every respect admirable work will be an indispensable companion. ALFRED W. BENNETT.

Notes on Scientific Work.

Geography.

The *Gesellschaft für Erdkunde* of Berlin has happily resolved to publish an account of the proceedings of each meeting of the Society immediately after it has taken place, instead of appending this report to their journal, which does not appear till some time afterwards. The first of these *Verhandlungen* is now before us, and contains much that is of immediate geographical interest.

A communication from General Kauffman, from the wells of Aristanbel-Kuduk on the borders of Khiva, describes graphically the country traversed by the main Russian column; and the astronomical positions which were determined on the line of march are appended.

From Dr. Nachtigal in Central Africa two very important papers, bearing date December, 1872, have been received by the Society, and will be published in full in their journal. They describe Bagirmi, a country lying south-east of Lake Chad, and are accompanied by a map, greatly extending the knowledge of this region derived from Dr. Barth's travels. The description of the present condition of the countries lying round Lake Chad is an exceedingly unfavourable one: wars and plundering appear to be going on in all parts and trade is at a standstill. Dr. Nachtigal's intention is to make his way east from Bornu through Wadai, and thence homeward towards Egypt.

Rohlfs, the well-known African traveller, has planned an expedition for the exploration of that unknown portion of the Libyan desert which lies south of the depressed region, discovered by him in 1869, between Cyrenaica and the oasis of Siwah. The Viceroy of Egypt has undertaken to defray the costs of the expedition, to which an astronomer, a geologist, and a botanist are to be attached; it is intended to leave Egypt in December of the present year.

An abstract of a paper by Dr. Schneider on the Dutch Residency of Palembang in the south-eastern part of Sumatra gives a good description of the physical geography, fauna, flora, and inhabitants of this part of the East Indies.

Arctic Regions.—The 80th of the series of papers on the progress of geographical research in the Polar Regions, published by Dr. Petermann in his *Mittheilungen*, contains a *résumé* of what is known from all sources respecting the American N. polar expedition under the late Captain Hall, and is accompanied by an elaborate map, in which the results of this expedition, as far as these are known, have been critically compiled, together with data of the former voyagers, Kane and Hayes. The story of the "Polaris" voyage is already well known in England, and no fresh tidings of the ship, which wintered, 1872-73, with the ten remaining members of her company on the coast of Northumberland Island, in lat. 77° 20' N. in Baffin Bay, have reached since autumn of last year. Two vessels however, generously sent by the American Government, have for some time been on their way northward to find and succour the "Polaris" crew.

In his remarks on the general results of this voyage Dr. Petermann draws a remarkable contrast between the advances made by the various expeditions which have been undertaken in steam vessels, and by those in which sledge travelling has been tried; maintaining that, since Hall's expedition has shown that there is no such thing as a permanent covering of ice in this branch of the Polar Sea, sledge travelling is little to be depended on, and steam-ships should alone be employed. The discovery of drift-wood on the shores of Hall land (the east coast of Robeson Strait between 81° and 82° N.) makes it not improbable, Dr. Petermann believes, that the land breaks up here into an archipelago of islands, or at least that there is a communication by which Asiatic drift-wood finds its way hither; and on the other hand the presence of numerous musk oxen in these regions makes it very probable that Hall land is in uninterrupted connection with the coast of East Greenland in Lat. 77° N., explored by the second German expedition of 1870-71.

Zoology.

Cutaneous Exudation of the Water Newt.—The common *Triton cristatus* of our ponds and ditches appears in its natural state and when undisturbed to be scentless, but when alarmed or irritated it emits an odour strongly resembling that of bruised poppy-heads, which is clearly perceptible in the open air and sufficiently powerful to attract the attention of a person coming into a room where the tritons are being operated on. This perfumed exudation seems to be given off equally by tritons in all stages of growth, and in partially dried specimens the poppy-like smell is very powerful and pungent. If the animal be exposed to the vapour of chloroform a viscid fluid exudes from the pores of the skin collecting over the wet surface after death in a kind of slime which when touched by any abraded portion of the hand causes momentarily acute pain; this acrid fluid can be made to exude from the tuberculated parts of the skin by gentle pressure with the finger. This fluid, moreover, has an acrid taste, produces a feeling of numbness in the tongue, and causes a sensible degree of inflammation in the mucous membrane of the lips and mouth which lasts for some hours and is accompanied by a sense of dizziness and stupor. An analysis of the slime showed it to be similar in composition to serum as regards its chief constituents; the exact nature of the acrid principle was not ascertained, but it appears to have no alkaloid character and to be highly volatile, corresponding in these particulars with the exudation from the skin of the common toad described by Dr. John Davy. The effect of the exudation when discharged direct from the skin of the triton upon the subject of experiment seems usually to be far more powerful than when applied artificially and fully to justify the popular prejudice against these creatures. On the tritons themselves the effect appeared to be painful and stupefying. On a healthy cat there was copious discharge of saliva and foam, and violent and audible action of the jaws. When placed on a human tongue the first effect was a bitter astringent feeling in the mouth with irritation of the upper part of the throat, numbness about the teeth more immediately in contact with the fluid, and a strong flow of clear saliva followed by foaming and violent spasmodic almost convulsive action of the muscles of the mouth; these symptoms were followed by headache lasting for some hours, general discomfort, and in half an hour slight rigor. A paper on this subject, embodying the above facts, by Eleanor A. Ormerod, has just been published in the *Journal of the Linnean Society*, vol. xi, No. 56, pp. 493-496.

Notes on Reptiles, by Prof. Barboza du Bocage.—In No. 1 of these Notes Prof. Bocage describes an interesting collection of Reptiles collected by M. Lecomte in New Caledonia: among them are two new species of the genus *Rhacodactylus*, viz.—*R. aubrianus* and *R. trachyrhynchus*; a new genus and species *Ceratophorus hexacerus*; and a new species of *Lepidodactylus*, *L. neocaledonicus*. Specimens of the rare *Rhacodactylus leachianus* and *Correlophus ciliatus* are also in this collection.—In No. 2 will be found notes on some new rare or little known Reptiles and Batrachians from Eastern Africa. Eleven new species are described: *Hemidactylus cessarii* Saint Jago, *H. gutturalis* Bissau, *Sepsina copei* Benguela, *Typhlacanthus punctatissimus* (gen. et spec. nov.) Mossamedes, *Calamodops polyplepis* Angola, *Prosymna ambigua* Mossamedes, *Psammophylax ocellatus* Mossamedes, *P. viperinus* Benguela, *Siphonops thomensis* St. Thomas, *Hyperolius huillensis*, *Huilla* and *Hylambates Anchietae* Mossamedes. *Feylinia curviroi* Gray is also redescribed. In No. 3 of the Notes we have *Lioscincus steindachnerii* (gen. et spec. nov.) from New Caledonia; *Lygosoma deplanchei* (spec. nov.) and *Tropidoscincus aubrianus* (gen. et spec. nov.) also from New Caledonia, and *Ophioseps nasutus* (gen. et spec. nov.) from Australia. The physiognomy of the last described species is very peculiar, almost establishing a trace of a new and intimate union between the Saurians and Ophiidians.

Double-headed Snake.—Dr. Dobson exhibited (*Proc. Asiatic Soc. Bengal*, January, 1873) a very remarkable double-headed form of *Lycodon aulicus*. The specimen had almost the appearance of two snakes fused into one at a short distance behind the neck, as each head was perfect and was joined by a distinct neck with the body. Before

becoming completely united the twin necks are connected by a band of skin extending about midway between the posterior extremity of the head and the point of complete union in one body.

Cheiroptera.—The same indefatigable zoologist publishes a description of a very remarkable new species of *Molossus* (*Nyctinomus*) *M. johorensis* from Johore (*Proc. Asiatic Soc. Bengal*, January, 1873) as well as Notes on the genera *Murina* and *Harpyiocephalus*, of Gray. The latter genus must be united with the former, which will then contain five species, forming a very natural group readily distinguished from all other genera of Vespertilionidae by the peculiarly shaped projecting nostrils taken in connection with the dental formula (*Proc. Asiatic Soc. Bengal*, May, 1873). In the same number of the *Proceedings* Dr. Dobson gives an abstract of a memoir to be published by the Society "On the Asiatic species of *Molossi*." The paper commences with an account of the distribution of the species of this very remarkable and well defined group. Of the five genera of the group two only, *Nyctinomus* and *Chiromes*, are found in the continent of Asia and its islands. Six species belonging to these genera are described, of which one half are new. By far the greater number of species belong to the genus *Molossus* and are confined to the Western world.

European Spiders.—Prof. T. Thorell completes his work intitled *Remarks on Synonyms of European Spiders* by the publication of part 4. This most useful work forms an octavo volume of more than 600 pages and contains synonymical remarks:—1. on the spiders described in Westring's *Aranee Suecice*; 2. on the spiders described in Blackwall's *History of the Spiders of Great Britain and Ireland*; 3. on some of the spiders described in Simon's *Catalogue Synonymique des Aranéides d'Europe*. In calling attention to this work we can heartily endorse the opinion of the Rev. O. P. Cambridge that in the compilation of the synonyms the greatest care and accuracy has been shown in determining the identity of species described by various authors. Prof. Thorell has not contented himself with the descriptions alone, but has in many cases compared typical examples from different parts of Europe with great pains and acumen. The date of establishment of both genus and species is prefixed, and the work is one that will prove indispensable to the student of European spiders.

Chemistry.

The Action of Heat on Diamond and Graphite.—To the current number of *Poggendorff's Annalen* (1873, No. 4) a peculiar interest will attach itself, as it contains the last paper of Gustav Rose. Some ten years after the death of his illustrious brother Heinrich, the chemist, the scientific world now sustains an equal loss by the death of the great mineralogist.—One of the leading questions that called for an investigation which has been extended over several years was the theory, held by many and doubted by others, that the diamond can be blackened by intense heat. In the first experiment Rose placed diamonds between carbon points in an exhausted tube and subjected them to the action of one of Siemens' dynamo-electric apparatus. The crystal in each case became red hot and flew to pieces by the too sudden application of heat, but on the surface was found a black crust, a hair in thickness, which would mark paper and proved to be graphite. Another crystal of diamond, enclosed in a piece of dense coke and placed in a plumbago crucible packed with charcoal powder, was heated for half an hour in one of Siemens' regenerative furnaces to the temperature at which cast iron melts without undergoing any change whatever. Another diamond, a cut (rose) diamond, which was enclosed in a crucible as before and heated for ten minutes in the furnace to a temperature at which wrought iron melts, retained its form and the smoothness of its facets but became quite black and opaque and exhibited a strong metallic lustre. The black portion formed a distinct layer of the thickness of a hair covering the unaltered substance within. These results confirm those of Schröter and appear to justify the view that diamond, though it undergoes no change when exposed to the greatest heat of a porcelain furnace or that at which cast iron melts, is slowly converted at the temperature of molten wrought iron into graphite. When heated in contact with air in a muffle the diamond exhibits another remarkable change: there are developed on the octahedral and cleavage planes regular triangular depressions that resemble those occurring in abundance on the fine crystals from the Vaal River and recall the faces formed on planes of crystals, soluble in acid, by the slow and imperfect etching action of such a reagent; as, for example, the action of hydrogen chloride on calcite. Like them, these depressions on the diamond bear an exact relation to the crystalline form and are determined by certain definite faces, their sides being parallel to the edges of the octahedral faces of the crystal. Measurement with the goniometer showed them to belong to the icositetrahedron, the faces of which have not been met with on diamond. These symmetrically shaped pits can easily be seen by heating a thin plate of bort in a blow-pipe flame and examining it under the microscope. By prolonged heating several small triangular pits will often merge into one large one. A crystal of diamond, even when so reduced in size by oxidation as to be only visible with difficulty, continues to exhibit sharp edges and angles; the

paper is illustrated with drawings of such crystals. A dodecahedron with very rounded faces but smooth and brilliant surface also exhibited the triangular pits often very distinctly; moreover it had a brown colour which was not destroyed by heat, and must therefore be of a totally different nature from that of the topaz or smoky quartz. Returning to the blackening of the surface by heat the author states that some of the specimens of diamond in the Berlin Collection appear quite black by reflected though translucent by transmitted light and that this black substance lying in the little irregularities of the surface is found by its behaviour in fused nitre to be graphite. The relative ease with which graphite and diamond burn was determined by exposing them to the same temperature for the same time when the following amounts of the three specimens mentioned below were consumed:—

Foliated graphite	27.45 per cent.
Diamond	97.76 "
Granular massive graphite	100.00 "

The Solubility of Ozone in Water.—Carius published a paper some short time ago in which he showed that, contrary to the views of most chemists, ozone is absorbed unchanged and to no inconsiderable degree by water. As ozone is always mixed with a large excess of oxygen and this mixture does not remain of a constant composition for any length of time the determination of the coefficient of absorption of ozone by water is not an easy problem. Carius has recently been led by comments of other chemists on his former paper to repeat and continue his research in this direction (*Ber. Deut. Chem. Gesell. Berlin*, 1873, No. 12, 806). He gives the preference to Houzeau's method with the silent discharge for the preparation of ozone, as it yields, when oxygen is taken, a gas very rich in ozone, and, when air is chosen, less nitrous acid than when visible sparks are used. In three experiments 100^{cc} of liquid at 0° and 0.76 contained in addition to oxygen 1.346^{cc}, 0.910^{cc} and 0.748^{cc} respectively of absorbed ozone. The amount taken up by water decreases very rapidly as the temperature rises: one experiment proved that at 16° 5 and 0.7358 100^{cc} absorb 0.611^{cc} of ozone. When air was used in place of oxygen the water contained some nitric acid, due no doubt to the oxidation of the nitrous acid by ozone. Rain water without doubt contains ozone, though the pressure exercised by this constituent of the atmosphere is so small that it is highly improbable we could detect its presence even were the air strongly ozonised.

Combination of Ethylene and Acetylene.—L. Prunjer read a paper at a recent meeting of the *Société chimique* of Paris on the combination of these hydrocarbons which takes place when they are passed through a tube raised to an incipient red heat. The product C_4H_6 forms with four atoms of bromine a tetrabromide, $C_4H_6Br_4$, which melts at 113–115° and appears to be identical with the compound the condensation of which Caventou noticed when illuminating gas is subjected to pressure, and the product obtained by Henninger by the reduction of erythrite.

"Pinolic Acid."—The acid of Friedel and Silva, $C_8H_{10}O_2$, formed by the oxidation of pinacolin is believed by Butlerow to be identical with the trimethylacetic acid that he obtained synthetically from trimethylcarbinol and which melts at 34–35° and boils at 161°. The former observers in a paper read before the *Société chimique* state that during a number of experiments with the acid they did not notice so high a melting point, and treatment with anhydrous phosphoric acid in the cold did not produce a change. Heat caused decomposition and the formation of hydrocarbons and an ethereal product. By fractional distillation however it appears that the melting point rose to 30° and the boiling point to about 163°. The most volatile portions of the crude acid contained a very small amount of acetic acid. A number of salts of the acid were prepared and analysed; among them the characteristic copper salt. The acid is yielded in almost theoretical amount by the oxidation of pinacolin. They now consider that it is probably identical with trimethylacetic acid and attribute the difference in melting point to the presence of impurity in the material examined. Pinacolin and pinacolin have a constitution normally derived from the acetone formula and a modification in constitution only occurs when the oxidation of pinacolin to trimethylacetic acid takes place. It is not probable that so slight a reaction as the hydrogenation of acetone should cause a constitutional atomic change, though it may be more readily conceived in the case of oxidation.

Reduction of Carbonic Acid by Iron Phosphate.—It has been ascertained by E. N. Horsford (*Sitzber. Wien. Akad.*, 1873, 91) that an ethereal extract of green leaves, which has been separated by hydrogen chloride into two layers, a yellow and a blue layer, contains in both portions phosphoric acid, iron, potassium and calcium. He has further observed that a mixture of sodium phosphate and iron protosulphate in presence of water is able both in light and darkness to reduce carbonic acid to carbonic oxide. From these observations it appears probable that the formation of a solution of a phosphate of iron protoxide may be a preliminary stage towards the production of vegetable tissue from the elements of carbonic acid, water and ammonia. Formic acid, it is well known, may be formed by the direct combination of carbonic oxide and water.

Lime-Magnetite.—In a recent number of the *Phil. Magazine* (vol. xlv., 455) Dr. Percy describes a crystallised compound formed by heating iron peroxide and lime in equivalent proportions to whiteness for several hours in a muffle, the atmosphere of which is oxidising. The product has a bright metallic lustre and is made up of acicular crystals exceeding an inch in length; it is very brittle, is magnetic, and has a specific gravity of 4.693. When prepared in larger quantities from haematite and chalk crystals more than two inches long were produced. They have not yet been measured. Dr. Percy regards them as magnetite the iron protoxide of which is replaced by lime.

Kjerulfine.—Von Kobell has described (*Four. Prakt. Chem.*, 1873, Nos. 5 and 6, 272) under this name a new mineral species from Bamle, in Norway. It has the formula $2\text{Mg}_3\text{P O}_4 + \text{Ca Fl}_2$, a small portion of the calcium being replaced by sodium. It is nearly allied to wagnerite, which however contains very little or no calcium.

Writing from Cambridge, Mass., as correspondent to the current number of the *Ber. Deut. Chem. Gesell. Berlin*, W. Gibbs reports on the continuation of his researches on the hexatomic compounds of cobalt.—He has also found that the higher alkaloids form an extensive series of compounds with phosphoric or arsenic acid and the oxide of a metal of the magnesium group which belong to the type of the well-known di-magnesium-ammonium phosphate. Most of them crystallise exceedingly well and are more soluble than the ammonium salt. The alkaloids employed were strychnia, brucia, morphia, codeia, and narcotine. The cadmium salts are most distinguished for their beauty; uranium oxide forms a similar series. These salts are characterised by a remarkably sparing solubility in water and alcohol and may play an important part in analytical operations.—F. H. Williams is examining in the laboratory of Prof. Crafts the action of nascent hydrogen on carbon. He conducts the gas developed by the action of hydrogen chloride on cast iron through tubes cooled with ice and salt and then into bromine. The fluid products, he has found, commence to boil at $9^\circ 5$ and the boiling point rises gradually to 155° . They have the odour of garlic, turn brown in the light, and contain carbon, hydrogen, and chlorine. The bromine compounds boil between 120° and 179° , at which temperature hydrogen bromide is evolved. Details of this research have yet to be published.

New Publications.

- ASKENASY, E. Botanisch-morphologische Studien. Heidelberg: Winter.
- BOLTZMANN, L. Experimentelle Bestimmung der Dielektricitäts-constante von Isolatoren. Wien: Gerold's Sohn.
- BROCA, P. Sur le plan horizontal de la tête et sur la méthode trigonométrique. L'angle alvéolocondylien et l'angle biorbitaire. Paris: Hennuyer.
- CLOS, M. D. Des caractères du péricarpe et de sa déhiscence pour la classification naturelle. Toulouse: Douladoure.
- COLLENOT, J. J. Description géologique de l'Auxois. Dijon: Manière-Loquin.
- DE ZIGNO, A. Flora Fossilis formationis oolithicae. Vol. II. Padova: Tip. del Seminario.
- DOMALIP, K. Zur mechanischen Theorie der Elektrolyse. Wien: Gerold's Sohn.
- EHRENBERG, C. G. Mikrogeologische Studien ueber das kleinste Leben der Meeres-Tiefgründe aller Zonen und dessen geologischen Einfluss. Berlin: Dümmler.
- EMMERT, E. Gesichtswahrnehmungen und Sinnestäuschungen. Bern: Jent und Reinert.
- FOERSTER, W. Bericht der Sternwarte zu Berlin (1867-1871). Berlin: Dümmler.
- FOURNIER, E. Sertum Nicaraguaense. Fasc. I. Filices. Paris: Martinet.
- GAUDRY, A. Considérations sur les mammifères qui ont vécu en Europe à la fin de l'époque miocène. Paris: Martinet.
- GRAUDEAU, M. L. Recherches sur le rôle des matières organiques du sol dans les phénomènes de la nutrition des végétaux. Nancy: Berger-Levrault.
- HARTMANN, J. Humanität u. Religion. Leiden: Brill.
- HEULOT, E. Etudes sur un cinchona succirubra des Indes anglaises. Boulogne: Bover.
- HIS, W. Untersuchungen über das Ei und die Entwicklung bei Knochenfischen. Leipzig: Vogel.
- HORNSTEIN, C. Magnetische und meteorologische Beobachtungen auf der Sternwarte zu Prag (1869-1871). Prag: Calve.
- KASTNER, F. Expériences nouvelles sur les flammes chantantes et invention du pyrophone. Paris: Chaix et Co.
- MARCHAND, Dr. E. Etude historique et nosologique sur quelques épidémies et endémies du moyen âge. Paris: Delahaye.
- MÜLLER, J. P. Leitfaden für den methodischen Unterricht in der Botanik. I Theil. Morphologie und Physiologie. Remscheid: Krumm.

- PLANTAMOUR, M. E. Résumé météorologique de l'année 1872 pour Genève et le Grand Saint-Bernard. Genève: Ramboz et Schuchardt.
- REDTENBACHER, L. Fauna austriaca. Die Käfer. Hefte 8 und 9. Wien: Gerold's Sohn.
- SCHOLZ, A. J. L. F. Eine Ansicht über den Zusammenhang der Imponderabilien und einige daraus abgeleitete Folgerungen. Klausenburg: Stein.
- SEMPER, C. Reisen im Archipel der Philippinen. 2 Theil. Wissenschaftliche Resultate. 3 Band. Landmollusken. 2 Heft. Wiesbaden: Kreidel.
- SIGWART, Chr. Logik. I Bd. Tübingen: Laupp.
- VAHLEN, J. Jahresbericht üb. die philosophisch-historische Classe der k. k. Akademie der Wissenschaften. In Comm. Wien: Gerold's Sohn.
- VON LANG, V. Spiegelgalvanometer mit regulirbarer Dämpfung. Wien: Gerold's Sohn.
- VON LITTELOW, K. Zur Kenntniss der kleinsten sichtbaren Mondphasen. Wien: Gerold's Sohn.
- VON REUSS, A. E. Paläontologische Studien über die älteren Tertiärschichten der Alpen. Wien: Gerold's Sohn.
- WALLER, T. H. and PROCTER, H. R. Kohlrausch's Introduction to Physical Measurements with Appendices on Absolute Electrical Measure. Churchill.
- WECHNIKOFF, T. Troisième section des recherches sur les conditions anthropologiques de la production scientifique et esthétique. Paris: Masson.
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- WEISS, E. O. M. Die metaphysische Theorie der griechischen Philosophie nach ihren Principien dargestellt. Dresden: Adler.
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History.

Registrum Palatinum Dunelmense. The Register of Richard de Kellawe, Lord Palatine and Bishop of Durham, 1311-1316. Edited by Sir T. D. Hardy, Deputy Keeper of the Public Records. Vol. I. (Rolls Series).

THIS volume comprises the first portion of the earliest register extant belonging to the episcopal palatinate of Durham. In England there were only three palatinates, properly so called, those of Chester, Lancaster, and Durham, the last being the most ancient of the three. A palatinate is defined as a territory throughout which its proprietor enjoys certain royal rights and privileges, commonly called *Fura Regalia*, as fully and entirely as a sovereign himself does elsewhere within the realm, in which such territory is situated. Thus the bishops of Durham exercised the right of having their own courts of chancery, exchequer, and admiralty (as well as holding pleas of the crown, pleas of land, &c.), and also a court of wards and liveries. They appointed all the officials, issued all the writs, coined money, received the forfeitures and escheats, held councils in the nature of parliaments (Durham returned no members to Parliament till the reign of Charles II.), granted charters, &c. The question therefore naturally arises, when and how did the bishops of Durham obtain all these powers? To answer the question requires a detailed inquiry into the history of both the bishopric and the palatinate, and Sir T. Hardy has given a sketch of the results of his inquiry in the preface to the present volume, reserving an account of Bishop Kellawe himself for the next.

The investigation is rendered difficult by the fact that the see of Durham does not possess one original episcopal record of ancient date; all its Saxon and Norman grants have been lost, probably owing to the infamous conduct of Bishop Cosin's executors, who burnt eight or nine large chests of documents belonging to the see, for the purpose of preventing any disputes which might arise about the bishop's estates. Bishop Cosin had made the history of the church of Durham his peculiar study

and for that purpose had taken into his possession, for the purpose of compiling a work on the subject, all the grants to the see from its earliest period. These he seems to have abridged in the book which he compiled under the title of *Liber Rubens*, but he never returned the originals into the archives of Durham, and these valuable muniments no doubt were among those which were consumed in the executors' fire. When Edward I. inquired into the origin of the rights of the see, the famous Bishop Antony Bek replied that his predecessors had exercised all these powers from the times before the Norman Conquest without any interruption whatever. And in this view Sir Thomas Hardy is disposed to acquiesce. He derives these privileges from the reverence paid to S. Cuthbert, whose body, when the Danes destroyed Lindisfarne, was transferred by Bishop Eardulf to Durham. The British Museum possesses a most extraordinary memorial of this in the book of the Four Gospels with an interlineary Dano-Saxon version (MS. Cotton, Nero, D. iv.), which during the flight fell into the sea and was some time afterwards found upon the coast; the stains on the back seem still to bear witness to its immersion. S. Cuthbert's services in enabling Alfred to repel the Danes are well known (we need only refer to the account in the second canto of *Marmion*), and successive kings heaped privilege after privilege on the favoured place where the saint's relics rested;

"There deep in Durham's shade
His reliques are in secret laid;
But none may know the place,
Save of his holiest servants three,
Deep sworn to solemn secrecy,
Who share that wondrous grace."

Symeon of Durham, the historian, speaks at large of the donations made by the Kings Alfred and Guthred, comprising the lands between the Tyne and the Tees; and even if the original donation were as fictitious as that of Constantine to Sylvester, yet the gradual growth of such an extensive palatinate would equally attest the reverence paid to the great national saint of the North. Sir T. Hardy traces the history of both bishopric and palatinate down to modern times, pausing to dwell more at length on bishops like Antony Bek, or on the attempt made by Act of Parliament in the reign of Edward VI. to subvert the palatinate entirely, by dividing the bishopric into two (the Act, never printed before, is inserted here by the editor), or on the attempt to found a university in Cromwell's time, which was favourably regarded by the Protector, but which Oxford and Cambridge successfully resisted, dreading a rival at Durham, as in other ages at Stamford, or in our times at London. It is curious that when the English set up a university at Caen, in Henry VI.'s reign, Paris sent a letter to Oxford, as to a friendly place of education, remonstrating against this attempt at rivalling the mother university of France and of Europe. Even Bishop Butler stood up firmly for the independent rights of the see; but at Van Mildert's death the palatine jurisdiction was detached from the bishopric by Act of Parliament, and thus this ancient episcopal palatinate, after it had been in existence in its various forms for more than one thousand years, was dissolved, and its immense temporal powers, which had been often viewed with distrust and assailed by many of our sovereigns, merged into the crown.

The MS. now published has had a fortune of its own. It was borrowed in 1640 by an agent of the Earl of Newcastle for the purpose of some lawsuit affecting the property of the Earl, but was never returned. Somehow it fell into the hands of the Earl of Oxford, who parted with it to Osborne the bookseller; he sold it to Rawlinson, and it passed with the rest of that antiquary's collection to the Bodleian. Oxford honourably restored it

to Durham, and in 1868 it was, with the other muniments belonging to the palatinate, removed to the Record Office in London. It is now printed as being of more than local importance, for it abounds with striking and valuable materials illustrative of the general history of England. Thus there is much about Robert Bruce's war with Edward II., and one of the last documents in the present volume is a letter from the Cardinals at Carpentras, describing the outrages perpetrated by the Gascons when the conclave met to elect a successor to Clement V. Many instances occur of the rapacity of the Avignon popes; and the general course of public business in the reign of Edward II. is illustrated in innumerable particulars. The details of public affairs in the Middle Ages have received less attention than they deserve. The deeds of the great nobles as described by Froissart, the monastic life as told by church historians, did not really concern the mass of mankind. The public and social life of those times is only gradually finding historians, the materials for its history are only now being printed. But our editor has reserved for the preface of his second volume the instances which he has collected to show how Kellawe's Register elucidates general and particular history, civil as well as ecclesiastical; and we shall hope to report his conclusions at no great length of time. At the end of the preface a number of passages are collected where the reading of the MS. seems to be corrupt. Some of them may be corrected from similar clauses occurring in other documents contained in this volume: e.g. p. 39 *praemissa extendi, read exercendi* (*c* and *t* are much alike in MSS. and the curled upward stroke for *r* is sometimes very faint); p. 53 *nec in praemissis a juris casibus, read permissis a jure*; p. 141 *de qua cujuscumque toto tenore.....aut defectum, read cujusque.....defectu*; p. 143 *inductum solvi, read judicatum*; p. 165 *et circiter vos, read et circa ea, nos*. Several other passages need a better punctuation, and indeed if we had any complaint to make about the edition it would be that it was over-punctuated, the multitude of commas being sometimes prejudicial to the sense.

The earliest document referred to in the volume is a record of Henry I.'s time (p. 8), concerning the fishery of the Tyne, made before the famous Walter Espec, then justiciary: "*Tertia pars aquae erit communis et libera; et eadem aqua mensurari debet ad mayne stod, quando eadem aqua fluit, ut sit plena de banke en banke.*" In p. 26 the following description of a seal occurs: "*In quo sigillo, quasi rotundo, de cera rubea, erat quasi quoddam scutum, in quo etiam scuto erant quasi tres cupae, in cujus circumferentia erant literae sic dicentes, Sigillum Gerardi de Aldenard.*" In p. 90 mercatoribus de societate Peruch. should be explained in the margin as "the company of the Peruzzi" at Florence, whose large loans to Edward III. afterwards led to a sort of general bankruptcy in that city. There are numerous licences of non-residence to clergymen for the purpose of studying in some place "*ubi Generale viget Studium:*" in p. 197 a scholar of Merton Hall, Oxford, is allowed to enter holy orders, notwithstanding that he is a born bondman of the bishop; we are reminded of the clause in Henry II.'s Constitutions of Clarendon which forbids the ordination of a serf without the consent of his lord, an old rule which we find also in Ireland and France. In p. 346 is a certificate that John le Lorimer of Auckland was born without a left ear, and had not lost it for crime. In p. 462 a cleric imprisoned for robbery is admitted to clear himself by the oaths of seventeen compurgators, "*cum quartadecima manu sacerdotum et tertia manu clericorum.*" In p. 296 a tournament is forbidden. In p. 300 there is a safe-conduct for Henry Baker, "*gardein et menur des vitailles,*" who was taking provisions to London by sea for the use of the bishop during his stay at the Parliament there.

We could wish that the early registers of other dioceses might meet with such editorial care. Exeter for instance has a register of still earlier date, beginning 1257. The Chapter of Exeter contains members who would do the work well, and we hope that they will some day give us the early episcopal registers of the West—more than half a century earlier than those of Durham, and very important for the history of Western England.

C. W. BOASE.

Historical Essays. By Edward A. Freeman, M.A., Hon. D.C.L., late Fellow of Trinity College, Oxford. Second Series. London: Macmillan and Co. 1873.

STUDENTS of history, as well as the general reading public, will, we doubt not, receive with hearty welcome this second series of Mr. Freeman's *Historical Essays*, and will find them to fall short in nowise of the attractive style, the erudition at once varied and accurate, and the power of trenchant and perspicuous exposition, which so strikingly distinguished its predecessor. Considering the very large number of topics which are dealt with in the nine essays making up the present volume, the treatment of any one of them in a manner at all approaching to exhaustiveness was of course out of the question. Mr. Freeman, however, is uniformly careful not to put forward any conclusion, without briefly estimating the authorities, and stating the reasons which helped him towards its formation. Many particulars of literary history and criticism, the appreciation it would be just to form of many prominent actors upon the stage of human affairs, are still, and are likely long to remain objects of controversy. Some of these problems Mr. Freeman applies himself vigorously to attack and to solve. His acknowledged talent and well-earned reputation fairly entitle him to undertake tasks with which the strength of but few literary champions is equal to contend.

Among these, it is enough to mention the Homeric question, upon which, perhaps the knottiest of modern controversies, Mr. Freeman conceives that he has worked out a decision which may claim to be accepted as final. The authorship of the two epics is, according to him, one and indivisible. Indeed he goes so far as to declare that the Homeric controversy no longer exists. Unfortunately for this assertion, those who would introduce more or less of disintegration into the *Iliad* and *Odyssey* cannot be reduced to silence, witness the recently published essay of Bonitz, and Mr. Paley's preface to the second volume of his edition of the *Iliad*. Nay more, so high pitched is Mr. Freeman's Homeric orthodoxy, that he takes the Attic poets sharply to task for departing from the canonical authority of the two epics in their scenic presentments of the heroes of the Troic cycle. He even ventures a conjecture, that Homer, as a boy, might have seen in the flesh the much enduring divine Ulysses. The comparative sketch of the three earliest Greek historians, with which the third of these essays commences, is, as a whole, particularly just and discriminative. One statement, however, bearing upon the merits of Thucydides, we cannot help thinking far too highly coloured. "There is hardly a problem in the science of government, which the statesman will not find, if not solved, at any rate handled in the pages of this universal master." Had then the Attic historian any conception of the vast development and complicated life of a great nation, as compared with the narrower range of the Hellenic πόλις, of the momentous political and social import of the commercial and industrial classes, of the manifold perplexities springing from the interactions and collisions of civil and ecclesiastical power? Mr. Freeman, however, virtually cancels his transcendental eulogium of the greatest of ancient historians, by the admission that he is not a quite perfect expositor of the lives and actions of his

own contemporaries and countrymen. Everyone capable of forming a rational judgment will side with Mr. Freeman's refusal to place the pupil of Aristotle, the leading man of the Hellenic race, the propagator of Hellenic culture, in the same category with Attila and Timur, the barbaric autocrats of savage hordes. But it is to be feared, that the want of contemporary authorities, and the many discrepancies occurring in those which have come down to us, must throw almost insuperable difficulties in the way of such an appreciation of Alexander's personal character as shall meet with universal acceptance. The brilliant and comprehensive summary of the rise, the consolidation, and the universal spread of Roman domination forms perhaps the most noteworthy portion of the present volume. Admitting, however, as Mr. Freeman virtually admits, that the imperial phase of Roman power was a necessary evil, or at all events the least in a choice of many evils, the sweeping moral reprobation with which he stigmatizes it loses much of its force and significance.

GEORGE WARING.

Luis de Leon und die spanische Inquisition. Von Dr. Fr. H. Reusch, Professor der Katholischen Theologie an der Universität in Bonn.

THIS book is an expansion of a lecture on Luis de Leon, with the addition of carefully compiled appendices. Its value consists in the minute and accurate account given of the process of trial, lasting over five years, at the end of which the eminent professor of Salamanca was declared innocent. He had been accused by some jealous rivals in the University itself, and the two main charges against him concerned the account he had given of the Vulgate, and an unpublished translation of the Song of Songs. He was not badly treated except that the close confinement affected his health, and he once complains of being starved. The lingering five years' trial was however suffering enough for an innocent man. When we hear that Melchior Cano and Arias Montano underwent similar danger, and that even Saint Theresa and Saint John of the Cross narrowly escaped it, we see what a tyranny the Inquisition exercised, so that Dollinger (to whom Reusch dedicates the book) can say that it "crushed out true science in Spain." Bishop Hefele in his Life of Cardinal Ximenes tries, somewhat unfairly, to throw the chief blame on the Monarchy which set such a remorseless engine to work. When Luis de Leon resumed his lectures at Salamanca he made no allusion to the past five years, but simply began with "heri dicebamus," in which he has been copied by a professor in a modern university. Professor Reusch supplies just the detailed inquiry into a special case, which of course Llorente could not give in his more general account, when writing his *Critical History of the Spanish Inquisition*.

C. W. BOASE.

Notes and Intelligence.

Mr. Palmer has published in two bulky volumes (Trübner and Co.) further documents illustrative of the history of Nikon. The first of these is taken up with extracts from the travels of Macarius, Patriarch of Antioch, who visited Russia twice: once during the supremacy of Nikon, and once to take part in the synod which deposed him. The narrative of the first journey was written after the return from the second, and therefore is unimpeachable evidence whenever it tells in favour of Nikon. It is supplemented with extracts from Solovieff bearing upon the troubles of Alexis' accession and upon the Polish war; the last is treated too briefly to be intelligible, and from Denisoff upon the Raskolniks, who did not object to Nikon's correction of palpable errors in the service-books, but to his persistent efforts to reduce the Russian Church to exacter conformity to the Greek than the Greek Patriarch of Constantinople desired. The Russian Church, even before Nikon's reforms, was stricter and purer than the Greek, although it was yet more ignorant, and had attached itself to a number of accidental symbolisms to which a party was disposed to cling in a spirit of schismatical nationalism. Most of the third volume is taken up with

Paisius Ligurides' History of the Deposition of Nikon, now first published from the MS. in the Synodal Library at Moscow, used by Mouravieff in his history.

Mr. Palmer promises to return to the subject. When he does so it is to be hoped that he will not content himself with establishing that the Russian state was Erastian, Russian courtiers tyrannical, Greek Patriarchs venal, that Nikon had not a fair trial, and was in the right in the special points in dispute. To understand the matter as a whole we need to know whether a wise man would have accepted the position in which Nikon encouraged the Tsar to place him, whether Nikon having accepted it used it with a wise man's sense of its danger, and whether it is safe to judge of the case so exclusively as Mr. Palmer seems inclined to do from Nikon's evidence: Nikon was doubtless an honest man, and Paisius was a rogue, and almost certainly had been a profligate, but a rogue sometimes sees more of a case than an honest man under persecution who insists upon the points which suit him till he loses sight of all the rest.

Father Morris has published (Burns, Oates, & Co.) under the title of *Troubles of our Catholic Forefathers* a first series of extracts from family papers (in this volume the Babworths, Southcotes, and Tichbornes are the chief contributors). The pleasantest part of the book is the homely details about the Ursuline convent at Louvaine and the daughter house at Bruges, both of which were largely peopled by refugees from England; but most of the space is taken up with instances of the sordid harassing persecution for fear of which most of the English gentry gave up the religion they preferred, and which most Englishmen would gladly forget now that it has served its purpose. These are relieved in some measure by the cheerful, ingenious constancy of the minority, who escaped destruction by the intermittent clemency of the court. Their memory would have been more attractive if they had been less ready to collect or imagine "judgments" on the wretched class who made a trade of giving effect to the tyrannical laws enacted to gratify the fanatical bourgeoisie and parvenu landowners, whose delegates then spoke in the name of the Commons of England.

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Philology.

Oriental and Linguistic Studies. The Veda; the Avesta; the Science of Language. By William Dwight Whitney, Professor of Sanscrit and Comparative Philology in Yale College. New York: Scribner & Co. 1873.

SCIENTIFIC intercourse between America and Europe, and particularly Germany, is not so close and constant that all the American journals, in the contents of which we might be interested, can be expected to reach us. Professor Whitney therefore has a strong claim on our gratitude for having made some of his shorter studies accessible to the public in a collected form, and we can only hope that the present volume may meet with such a reception as will encourage the author to republish in the same way some of his other short articles, especially those on accent in Sanscrit.

The first five essays in this volume treat of the Veda. They are better calculated than any other work to serve as an introduction and help to beginners in the study. They present with sober clearness the consolidated results of scientific inquiry, and do not hesitate to indicate the gaps in our knowledge. In the first we have to notice that the term *staubhika* (p. 14) should be replaced by *uttarārcika*. The second, "The Vedic Doctrine of a Future State," introduces us to an important group of ancient conceptions, possessing great interest for the anthropologist, and at the same time gives an example of how the Veda ought to be explained, by itself, not by Indian tradition. The third article, "Müller's History of Vedic Literature," criticises an important work of Max Müller's in a manner at once generally intelligible, and, to our thinking, perfectly just. Whitney acknowledges Müller's great merits in the warmest terms (p. 73) where he says: "There are few other scholars living who can walk with so firm and confident a step through the whole wide-extended field of the Hindu sacred lore, a field hitherto almost pathless in its obscurities and in great part unattrac-

tive in its barrenness:" but he is equally decided in rejecting some of Müller's assumptions, which have no firm foundation in fact, notably his attempt to fix the date of the Veda (p. 73 ff.). It is important to insist again and again upon the uncertainty of the chronology of the Veda, because otherwise an unfounded opinion might easily acquire, in the course of years, an appearance of authority. The fourth essay, "The Translation of the Veda," discusses a controversy respecting the interpretation of the Vedic text which may now be considered as at an end. The Vedas have reached us imbedded in a dense mass of native erudition of various dates, of which Sâyana's commentary on the Rig-Veda (fourteenth century A.D.) may serve as a sample. Some scholars, amongst whom was the late Professor Goldstücker, believed that these commentaries represented a genuine ancient tradition, in the face of which modern scholarship could only listen and believe. It may now, however, be regarded as established that an uninterrupted tradition respecting the interpretation of the Veda has not existed in India, and therefore cannot have been preserved by these commentators, and every one who studies the Veda at the present day takes the liberty of pronouncing judgment on the views of these Indian philologists as he would do in the case of a modern student in Europe or America. This state of the case is set forth by Whitney with clear penetration that cuts off from the adversary all hope of retreat. The fifth paper, "Müller's Rig-Veda Translation," is of more special interest. It is followed by an elaborate essay on the Avesta, in which the notices of the literature of the subject are particularly welcome.

Two reviews of Prof. Hewitt Key and Herr Oppert mark the transition to works of a more general character. It was no very difficult task for Professor Whitney to criticize the strange and isolated views of the former and the pretentiousness of the latter of these writers, and he does so in a very amusing fashion. The eighth article, "Müller's Lectures on Language," belongs to the domain of serious scientific controversy. Whitney does justice to the strong points of the book, and praises especially the admirable skill shown in the choice of examples, but he speaks with severity of its weak sides. He notices as a defect the want of plan in the whole, the carelessness of many assertions, and he goes so far as to call one deduction "simply and solely nonsense." One is tempted to ask whether such strong expressions were necessary: whether these strictures might not have been worded more politely? But Whitney has evidently proportioned the violence of his attack to the resistance which he expected it to encounter, and was persuaded that Max Müller's popularity in England would offer a very strong resistance to any hostile criticism. It seems, in fact, that in England Max Müller's lectures have been in many ways regarded in a false light. When we read in a letter of his to the Hungarian minister v. Trefort, written on the 18th of May, 1873, and published in the *Pesth Lloyd*: "My own lectures on philology have become a school-book in many places (in England)," there is no room for any feeling but astonishment. In point of fact there is scarcely a book less fitted for school use than Müller's lectures. A school-book ought to contain those results of research upon which the majority of those engaged in the special study are agreed, and should refrain as much as possible from the expression of personal opinions which have yet to be proved; Max Müller, on the contrary, in his lectures popularizes not the scientific conclusions generally recognized, but his own personal views. These are at variance on several points with those of his fellow students; some of his assertions respecting, for instance, the so-called Turanian languages or Grimm's law, have been shown to be unten-

able; while upon other points, e.g. mythological interpretations, it is scarcely probable that opinion will ever be united. The English public ought to feel itself indebted to Professor Whitney for calling its attention to this easily recognizable character of the lectures. Of the remaining papers it may suffice to notice two which are also of a polemical character, directed one against Schleicher's, the other against Steinthal's theory of language. I entirely concur in the judgment passed upon Schleicher. As to the criticism of Steinthal, just because I think more highly of the general value of his work than Whitney does, I am bound to admit that Whitney seems to me to have triumphantly refuted the latest statement of his views on the origin of language. But then I also believe that this refutation is addressed to the weakest of all Steinthal's writings. He always has a slight mystical metaphysical bias, and this is very apparent in the passages discussed by Whitney, who conceives that the profit to be derived by philologists from either Lazarus or Steinthal is extremely small. My own experience has been different, and I must confess that in the course of syntactical inquiries I have often derived very considerable assistance from the views of these writers.

It will be seen from what precedes that Professor Whitney's essays are both valuable and suggestive. It would be well if his lectures on the science of language were more studied in Europe, as they doubtless would be if the author were to provide for their publication in a convenient abridgment.

B. DELBRÜCK.

Palladius on Husbandry: edited from the Unique MS. of about 1420 A.D. in Colchester Castle. By the Rev. Barton Lodge, M.A. Part I. (Early English Text Society.) Trübner and Co. 1872.

As only the first part of this publication has yet appeared, we find no editor's preface to guide us, since that is of course reserved for the present till the work shall be completed. We are therefore left to our own unaided contemplation of the portion of the text before us. It is, however, not difficult to form a tolerably correct estimate of the work.

Smith's *Classical Dictionary* gives a sufficient account of "Palladius Rutilius Taurus Æmilianus, the author of a treatise *De Re Rustica*, in the form of a Farmer's Calendar, the various operations connected with agriculture and a rural life being arranged in regular order according to the seasons in which they ought to be performed. It is comprised in fourteen books: the first is introductory; the twelve following contain the duties of the twelve months in succession, commencing with January; the last is a poem, in eighty-five elegiac couplets, upon the art of grafting." The date assigned to the work is the fourth century, though there is some uncertainty on this point.

The treatise of Palladius seems to have been very popular in the Middle Ages; one mark of its popularity is the English translation now for the first time edited. Nothing is known as yet about the translator, unless the editor has found some note of him. Something is however supplied by internal evidence, as we shall see presently. The portion as yet published contains the translation of the first book, which is introductory, and of the next ten books, i.e. from January to October; from which it should seem that there are but three books more to come.

It is clear that the editor has taken very great pains with the work. The marginal notes, containing a summary of the text, are very full, and sometimes give an almost complete modern English rendering of the old English verse. Nothing can be more convenient than his system of adding, at the foot of the page, the original Latin words corresponding to the more obscure English words and phrases. This saves a great deal of tiresome reference, and at the same

time brings out the sense of the English very clearly—more clearly indeed than any explanation can do. Such perpetual reference to the original must have been of great assistance to himself, as it certainly is to his readers. The principle is perhaps obvious enough; but obvious principles are by no means always adopted by editors.

Observing these instances of care, it becomes the more astonishing to find that the *exact* forms of the original manuscript do not appear to have been followed. We miss the italics denoting marks of abbreviation, but most of all we miss the use of the letters *u* and *v* in their proper places. Just as in Mr. Arnold's edition of Wyclif's works, and just as in a great many other editions of old English texts, we find the MS. *v* systematically turned into *u*, and the *u* into *v*. Why is this? It may have been all very well when the study of old English was in its infancy, and when critical accuracy was unknown; but why should this pernicious system, which the Early English Text Society has done so much to put down, be any longer pursued? We are not mere infants, unable to read unless the texts are manipulated beforehand so as to make them look easier; we really are getting beyond that stage now, or we ought to be. Experience shows what comes of it; when Mr. Arnold met with the word *cornes* (which is but the old plural of *corn*) in his manuscript, he turned it into *corves*; so here the old English *chenes* (for *chinks*) is correctly printed *chenes* at p. 17, but at p. 218 the singular form *chene* (a *chink*) is mistaken for *cheue*, and then printed as *cheve*! The misprint *cheue* would not have mattered, as it would easily have been set right; but a word like *cheve* is one which only the initiated can understand, and must be a terrible puzzle to a beginner. Of course, as we have not access to the MS., *cheve* may be the scribe's error, and if so there is no more to be said; but it is very suspicious. If the MS. is really written *exactly* as it is printed, it is hard to believe that the assigned date (A.D. 1420) can possibly be right within half a century. There is something wrong somewhere.

The criticism of editorial work is an ungracious task; but we cannot shut our eyes to the fact that the editor seems to have made mistakes which are the result of mere inexperience. Thus at p. 43 we have—

"Palladii primus liber explicit: assit ut unus
Alpha vocatus et Omega dei mihi Christus homo."

Now any one accustomed to the old Leonine verse misses the rime in the first line; the last word should, of course, be *imus*, which has the advantage of making sense also. Besides which, *unus* would have been written *vnus*, with initial *v*. The author prays that Christ, who is Alpha and Omega, will grant him to finish the *last* book as he has now finished the *first*. Again, in st. 157, p. 40, should not *feetes* be *seetes*, as in the stanza following? So at p. 49 we have *wretched* for *wreched*, where the MS. no doubt looks like *et*; but as *cc* is so frequently written like *et* there was no need to print it so. At p. 114 it is suggested that *wordes* is an error for *worldes*; yet it is no error, but merely another spelling; see l. 32 of Dr. Morris's *Genesis and Exodus*, and *werd* for *world* five times in *Havelok the Dane*. The words *cree* for *ere* on p. 79, and *brynnyn* for *brynnyn* on p. 127, are mere printer's errors, such as cannot always be avoided. The emendation *Floures* for *Floure* on p. 148 is wrong; so is the insertion of *and* in the fourth line on p. 213; and so is the insertion of a comma after *wonder* on p. 7, l. 163, as may be seen by referring to any glossary to Chaucer. And lastly, to make an end of fault-finding, we may observe that a *hopper* is not a small square field, as explained on p. 180; though perhaps this is a mere misprint for something else, since the note says—"Clothe thy hopper (small square field) with a

hyæna's skin." The original text says—"Thyne hopre cloth hienes skynne," which means—"Let thy hopper-cloth be a hyæna's skin;" where *hopper-cloth* is a compound substantive, meaning the cloth laid at the bottom of a *hopper* or seed-basket.

On the whole, however, the edition is a good one, and a great gain; we are only pointing out some respects in which it might have been improved.

It further appears that the MS. itself, though fairly well spelt on the whole, is not always correct; there are several places where editorial corrections might have been made to the great improvement of the metre. Thus on p. 31 *shovelle* (*shouelle* in MS.?) should be *shoule*, in order to rime with *oule*. It is remarkable that the same error occurs in most editions of the nursery tale of Cock Robin. The correct reading is clearly, as noted in Halliwell—

"I, said the Owl,
With my spade and shoul."

The scribe, like many others, sometimes writes *e* for *o*, as *dese* for *dose* (p. 27); and, on the contrary, *o* for *e*, as *holden* for *holden* (p. 123); *loith* for *leith*, i.e. *layeth* (p. 25). Other errors are *Ereither* (p. 32) or *Er either* (p. 186) instead of *Here either*, i.e. either of them; also *oons* for *oones* (pp. 114, 147); *thens* for *thennes* (p. 30); *een* for *eyen* (pp. 129, 133); *colours* for *coloures* (p. 133); mistakes which entirely cripple the rhythm, as they subtract a syllable from the lines wherein they occur. The necessity of such emendations is especially conspicuous at p. 147, where *ones*, a dissyllable, but miswritten *ons*, is made to rime with *oon is*, two separate words.

Putting aside these and a few similar drawbacks, let us proceed to examine the work as a whole. There are several things which contribute to give it a high value, to some of which we now draw attention. The nature of the book is such that it necessarily contains a vast number of good examples of agricultural words, which are not always easy to find and are yet of much interest to the linguist; whilst it also contains a great deal of information on agricultural subjects, mixed up with several instances of curious folklore and old superstitions, applicable in the first place no doubt to Italy, but not without their occasional counterpart in old England. On many technical points its authority will always be worth consulting. But we more especially wish to draw attention here to one peculiarity, which is perhaps almost sufficient to assign to it an interest of the highest character, and this is the excellent commentary which it will furnish, if duly examined, upon the works of our famous Geoffrey Chaucer. Probably no more instructive commentary upon Chaucer's rhythm has ever appeared. It has hitherto been Chaucer's misfortune that the works of his imitators Occleve and Lydgate are such as to give us next to no help. They did not much succeed in catching their master's rhythm, and their lines frequently halt past all critical mending. This circumstance has cast a suspicion upon our great poet's rhythms; it has made them appear, as it were, too artificial; it has prevented the critics who uphold the smoothness of the flow of his lines from making as many converts as they might fairly hope to make. Here however at last, and it is none too soon, we are able to point to a long poem, *not* written by Chaucer, the author of which really had an ear, and had obtained a very creditable mastery over all the intricacies of the rhythm which he adopted. There can be little doubt that the author had thoroughly appreciated and mastered the metre of Chaucer's *Troilus and Creseide*, the "Man of Lawes Tale," and the "Clerkes Tale." We should infer, moreover, that he wrote no later than A.D. 1400, before Occleve produced his translation of *De Regimine Principum*, and whilst the true ring of the beautiful seven-line stanza was still well perceived. There are a few

Northern words scattered through the poem, such as *inwith* for *within*, *lovyng* in the sense of *praise* (p. 157), *umbigoon* for *surrounded*, and *veer* for the *spring of the year* (as in Barbour), which at once show that the translator of Palladius was not Chaucer, but some one who had at an early period of life lived in the North of England. Yet he must have come South afterwards, and completely mastered the Midland dialect, rhythm and all, so as to have been enabled to reproduce the language of Chaucer in all essential points. Hence the careful reader will find probably a great number of Chaucerian words, since a cursory examination shows us the words *nyghtertale* (p. 33), *pomly gray* (p. 133), *handbrede* (p. 80—Tyrwhitt has *hondbrede*), *arme-greet* (p. 75—see the “Knights Tale”), *been* as the plural of *bee*, *fleen* as that of *flea*, and so on. The expression *His eyen steepe* in Chaucer’s prologue has reference to bright eyes; so also in the translator of Palladius, p. 133, we are told that horses ought to have

Thaire eres shorte and sharpe, thaire e[ŷ]en steep[e];

where we dissent from Mr. Lodge’s explanation of “deep eyes,” and prefer the opinion of Dr. Morris. Again, as regards the metre, we know that Chaucer makes the final *-es* in the plural of substantives a distinct syllable, so that *swerdes*, for example, is a dissyllable, as in

The brighte swerdës wenten and fro.

In support of this we adduce from the translator of Palladius the extraordinary lines

The chenës, holës, pottës, polës mendë (p. 17);
Let rakës, crookës, adses, and bicornës (p. 42).

And, of course, other examples are to be found by the hundred throughout the work.

Again, Chaucer often contracts two words into one in certain cases, as *tabide* for *to abide*. So also the translator of Palladius:—

Yit is the chalk or claylonde for to eschew (p. 29);
Ne wicked worme this catell for to offende (p. 39);

where the metre requires *teschew*, and *toffende*.

So also in other matters. Here, for example, the *e* in the middle of a word counts for a syllable.

To greece her vynë-knyf for dyveres derës (p. 31);
The moldëwarp the Grekës thus pursue (p. 34);
Relaxëd bereth vynëyerdës gretë (p. 49);
For moldëwarpës cattës is to kepë (p. 109).

Here, again, exactly in Chaucer’s manner, we find such rimes as *arayës*, *play is* (p. 27); *marës*, *ware is* (p. 28); *seedes*, *nede is* (p. 29); with probably half a hundred more of the same kind. Examples of the final *e* are not very common, for the simple reason that the poet often shows great art in contriving elisions; still the following may be cited.

Yet wenë men that they wol not do soo (p. 39);
The balkë, that thai calle unerëd lande (p. 44);
The leendës broodë, playnë bak and streght (p. 129);
Howe vynës yonge as oldë shal appere (p. 199).

Probably a more careful search would reveal a hundred examples at least; though of course it must be borne in mind that the scribe’s spelling is no particular guide. Thus he leaves out the final *e* in the plural adjective *greete*, and wrongly writes

With greet cleen, and tailës longe and wide (p. 129)—

which is mere discord; whilst he writes *alle* for *al*, *oute* for *out*, and *atte* for *at* in one and the same line, viz.—

Yf alle the swarme oute atte the yatës goo (l. 39).

But these things will not much trouble the student who is aware that the final *e*, as rightly pronounced, is entirely independent of the final *e* as occasionally miswritten.

In like manner on p. 38 we find *gutteres* as a rime to *fere is*; it is clearly miswritten for *gutterës*, a trisyllable.

Another peculiarity of Chaucer is that he rimes words spelt exactly alike, if their significations be not the same; thus, in l. 17 of his prologue, *seekë* (the verb) rimes to *seekë* (plural adjective). Similar examples in our new author abound; thus at p. 39 *stonde* (substantive) is paired off with the verb *stonde*, to stand.

Again, a final *e* is sometimes saved from elision in Chaucer by a cæsura, as in the “Nonne Prestes Tale”—

Of cátapúcë, ór of gáytre béryis—

unless (as some prefer) the cæsura be held to count for a syllable, and the reading be *catapus*, followed by a pause; however, we find in our new author a not dissimilar instance, at p. 39—

So thát thou clémë, ánd this lítel cóste.

But so interesting a subject forms a theme rather for a long essay than for a short notice. We must therefore conclude by thanking the editor very sincerely for the great pains he has evidently bestowed upon what will probably be found hereafter to be a work of no inconsiderable importance. The few blemishes we have pointed out are not such as to detract much from its value, though we do hope we may in future be considered as sufficiently grown-up to be able to read old English, even though every *u* and *v* of the original MS. be retained unaltered.

WALTER W. SKEAT.

Tití Livíi Historiarum Romanarum libri qui supersunt—iterum ediderunt Io. N. Madvigius et Io. L. Ussingius. Hauniae: F. Hegel. 1873.

FOR this second edition of the first five books of Livy Madvig has been able to make use of the Veronese palimpsest, edited by Mommsen in 1868, which contains portions of books iii. to vi. Hitherto the text of the first decade has rested on the authority of a MS. corrected in the fourth century for the Symmachi by two copyists called Nicomachus. This archetype is lost, but is represented to us by (1) the Medicean MS. of the eleventh century, and a MS. once at Worms and then used by Rhenanus, (2) a Paris—Colbertine MS. of the tenth century, (3) a Harleian MS. and Drakenborch’s Leyden MS.—these only holding the third rank. Madvig has calculated that the original MS. must have contained 144 letters in each column, and this is the number of letters between words which have been written twice by mistake in vi. 42, § 12-13, *causae libenter facturos*, the eye of the copyist having glanced for a moment at the wrong column. This is one of a series of delicate calculations and tests which Madvig has used for the external criticism of the text. At the beginning of his *Adversaria Critica* he has given a most valuable summary of the *causes of error* in copying manuscripts, a knowledge of which is of great service in emending the text. The other means of emendation consists in the internal evidence of style, matter, usage, antithesis, and so on, and it is here that Madvig’s great strength lies. Sometimes the two lines of argument, external and internal, coincide; and sometimes a difficulty in the one leads to closer investigation of the other, and fresh evidence is not unfrequently thus obtained. Questions of historical or critical evidence are too often treated as if the object were to convict a criminal, and it seems to be required that the evidence should be such as a jury would accept as legally sufficient. Of course the object is wholly different in literary matters, the balance of probabilities being sufficient for our purpose. The Veronese palimpsest, discovered by Mai, is independent of the one MS. on which we have hitherto depended, and hence its value. In the ninth century some one partially cleaned away the old writing, and wrote Pope Gregory’s “Moralia on Job” on the parchment thus obtained; writing materials had become very

scarce, and the supply of papyrus from the East having failed, parchment had become all the more valuable. Under the Moralia, however, we can still read leaves of Virgil, Livy, a Latin translation of Euclid, and some philosophical treatise. The text of Livy in this palimpsest was copied from a different MS. to that which the Nicomachi used about the same time, and we know that Cassiodorus in the sixth century had a text of Livy independent of both the Nicomachean and the Veronese. Unfortunately our new MS. is very badly copied, and the Nicomachean recension is much superior to it. It is difficult to imagine (says Madvig) how any one could have written *consulib. tantissimo* for *constantissimo*, iii., 35, 9, or *qui fuit* for *quievit*, iii. 51, 7, or made *aut alio loco* out of *Aio Locutio*, v. 50, 5. Still it has preserved the right text in some passages, and confirmed it in others. Thus in iv. 25, 4 the present text has *famem cultoribus agrorum timentes*, where something has been evidently omitted; the new text reads *Famem quoque ex pestilentia, morbo implicitis cultoribus agrorum, timentes*. In v. 53, 1 we read in the editions, *Sed res ipsa cogit vastam incendiis ruinisque relinquere urbem*, where the speaker supposes an objection to what he has been saying. Such an objection however is usually prefaced by *at*, not by *sed*; and the Veronese MS. prefixes a whole clause, *At enim apparet quidem [pollui omnia nec ullis piaculis expiari posse; sed, &c.]* In iv. 26, 12 we gain one new word, *Dilectus* simul edicatur et justitium, where there has always been a difficulty about the construction. On the other hand, in iii. 56, 12 tollendae appellationis causa, the last word is rightly omitted by the palimpsest. In v. 41, 3, M. Fabio pontifice maximo, the new MS. gives us the ancient and rare name M. Folio, and we can now see the meaning of the Medicean MS. having *M. filio*. The Foslitan or Folian family so rarely occurs that Folio was easily corrupted into Fabio. In v. 7, 13 the new MS. has *tum primum equis suis merere equites caeperunt*, thus confirming a conjecture of previous editors, where also a trace of the right reading survives in the Medicean. But in iii. 65, 1, where Mommsen out of the few letters legible in the Veronese constructs the reading *Novi tr. pl. C. M. P. Aricios N. et L. Aternios cooptavere*, and thinks the Nicomachean text bears traces of an historical and not a mere grammatical interpolation, Madvig with good reason dissents from him. These instances Madvig selects as being the most striking, but in many minor points the value of our new and independent witness is evident. Sometimes the coincidence in error shows that the text was corrupted before the fourth century. In fact in the instance given above, v. 41, 3, Plutarch must have read Fabio, for he says (Camill. 21) ἐξηγουμένον Φαβίου τοῦ ἀρχιερέως. Not a few of Madvig's previous emendations receive confirmation from the Veronese readings, e.g. iii. 62, 3, *id consilii animique habiturus sum quod vos mihi feceritis*, where Weissenborn follows the Medicean reading, *quod vos milites geritis*. Madvig's text is certainly by far the most satisfactory text of Livy that we possess, and what he has done for the last decade is something wonderful. It is curious that our MS. for the fifth decade is of the seventh century (at Vienna), and that for the third decade of the eighth (the Puteanus at Paris), whereas hitherto we have had nothing for the first decade before the tenth century. The new MS. is probably of the fourth, and certainly could not have been written before Diocletian, since *consul* and *consules* are represented by *CONS* and *CONSS*; whereas before the age of that Emperor *COS* is the regular contraction. We may add a remark on one passage where Madvig has altered his note, but where the difficulty still remains. In iii. 41, 8 the Decemvirs decide that Appius shall stay at home to manage the city, and Fabius shall take command of the

army. The Decemvirs' reason for this selection is thus given: "Appii violentiam aptiorem rati ad comprimendos urbanos motus; in Fabio minus in bono constans quam navum in malitia ingenium esse." The antithesis seems to require that Appius was kept at home because of his firmness in keeping down civil troubles, and Fabius sent to the frontier because his vigour in command of an army was greater than his civil courage in upholding the good cause (of the Decemvirs' party). If this is so, should we not read *malitia*? Naviter pugnatum, naviter bellum gerere, and similar phrases, are of constant occurrence in Livy, while *malitia* does not seem to be a Livian word. There is a curiously parallel passage in x. 22, 6, where another Appius is contrasted for his civilian powers with Fabius and Decius, "viros natos militiae." In his first edition Madvig inclined to omit *in bono*; now he thinks Livy has confused the different views in his mode of statement, but does not suggest any emendation. What "constans" means is clear from iii. 46, 4, neque decemviro constantiam defore. In the next paragraph Livy gives his own view of Fabius, but the word "rati" shows that in the first sentence he is only stating the Decemvirs' view. "Once," says Livy, he was equally excellent at home and abroad—domi militiaeque; now he had assimilated himself to Appius as far as he could, i.e. but was not quite firm enough for the Decemvirs to entrust him with the control of the city.

C. W. BOASE.

Ferrall and Repp's Danish-Norse-English Dictionary. [*F. og R.'s dansk-norsk-engelsk Ordbog. Fjerde forøgede Udgave ved A. Larsen.*] Gyldendal: Copenhagen. 1873.

HERE for the first time English students are presented with a classified list of Norse words and idioms. That is the first peculiarity of Mr. Larsen's edition of Ferrall and Repp. Hitherto that useful and time-honoured work has only professed to be a Danish-English Dictionary. It is an immense advantage, this addition alone; the enormous strides taken by the Norwegian literature, the great importance of the works of Norse writers in our day, and the peculiar northern individuality of those works, unite to make a Norwegian section in the one great Danish-English Dictionary an absolute necessity. Norse words here are plainly marked with *; and a less obvious, but still valuable contribution to the completeness of the work is made in the selection of exclusively Danish idioms, marked with †. The style of printing is far superior to that of the previous editions; the individual articles are far more modern and copious, and the spelling is corrected so as to be as much as possible in accordance with the latest improvements in orthography.

A Danish dictionary in the present day cannot fail to be a very empirical thing at best. Probably no language in Europe has an orthography so thoroughly unsettled as the Dano-Norwegian has. At first sight it seems as though the literature were sweltering in a chaos of bad spelling, without aim or hope. No two authors agree in form; a page of Ibsen differs from a page of Björnson and both from one of Paludan-Müller. Even the newspapers preserve their independence; *Fædrelandet* is not at all like *Berlingske*, and *Dagbladet* can be instantly distinguished from *Morgenbladet*. One's friends, with perfect indifference, address one as "Kjære Herr—" or as "Kære herr—" and date from Kristiania or Christiania, from Kjöbenhavn or Köbenhavn, as their own judgment dictates—a condition of things in the highest degree anomalous and almost incredible!

A point or two of firm land gives hope of a settled orthography in the future. Long ago Rask suggested that the spelling of Danish words should be modified in a phonetic

direction, and should more and more assimilate itself to the kindred Swedish spelling, which has already become fixed. The influential and learned, but somewhat narrow-minded Molbech opposed Rask with vigour, and the movement made little way. It was not till 1869 that a determined effort was again made to settle the floating orthography into a distinct mould, approximating the Swedish as closely as possible. For this purpose a meeting was held at Stockholm in that year, attended by eminent scholars from Copenhagen, Lund, Stockholm, Upsala, and Christiania, for the purpose of working together to this end. Among the delegates were Professor Malmström, the linguist J. Lökke, Ibsen the poet, and the antiquarian Svend Grundtvig. The rules laid down by that meeting form the basis of a reformed orthography, and it is interesting to notice that the suggestions of those scholars are being rapidly adopted.

A remarkable instance of the progress made in this direction is afforded by the book now under review. We have before us, side by side with the new work, an old edition of the same dictionary brought out by Mariboe in 1861. It may be interesting to point out some of the changes made. In the first place the letter Q is dropped, and all words which might be looked for under it are found under K. At the same time the letter C has almost disappeared, being merged in all possible cases into K. We notice that such words as *China*, *Chor*, retain the C. Some writers are ruthless in their destruction of this letter; Ibsen (in *Kjærlighedens Komædie*) writes Kinesemur (for Chinese-muur).

The last quoted word brings us to another innovation. This new dictionary rejects double vowels when the second is mute. *Huus* in Mariboe is *Hus* in Larsen. Of like significance is what is called the supporting *e*, a dumb letter following a vowel, as in *dœ*; the new dictionary, in accordance with the suggestion of the Stockholm meeting, spells that verb *dö*. An objection occurs to us here on the ground of confusion of meaning. In the present tense, *han döer* becomes *han dö* (he dies), which exactly corresponds to the noun *Dör* (door), especially if we drop the noun-capital after the extreme fashion of Ibsen and others.

The mute *j* is dropped in the new edition, a change which greatly helps to approximate the language to Swedish in appearance. *Gjöre* becomes *göre* (Swed. *göra*). Among minor alterations may be noticed the universal adoption of *öj* and *ej* instead of *öi* and *ei*. For example *Flöiten* in Mariboe is *Flöjten* in Larsen. All foreign words remain in a terrible state of confusion, but some phonetic changes of great importance are made. The old-fashioned *Capitaine* is hardly to be recognized under its new dress of *Kaptejn*. Among words of foreign extraction we miss several in constant use. We fail to discover *Ekko*, for instance, nor is it given under *Echo*, yet surely it is quite as much in use as the old-fashioned *Genlyd*.

In all the above-mentioned reforms Hr. Larsen has followed the suggestions of the Stockholm meeting. He has not been bold enough, however, to adopt other modifications of no less importance. It is well known that the use of Gothic letters is almost entirely abandoned in Sweden, and by no means universal in Denmark. Two prominent Copenhagen newspapers, *Fædrelandet* and *Illustreret Tidende*, have long been printed in Latin type, and so are many of the best books. It was desired at Stockholm that the Dano-Norwegian language should wholly drop the Gothic letters, but Larsen has continued their use. It was further proposed to drop the use of capital letters for nouns, which according to Rask was not general in Denmark till about 1700, and which is unknown in Swedish. The poet Ibsen alone has been consistent in carrying out this suggestion. It was

further proposed that where *æ* was of no more value than *e*, *e* should be substituted. Ibsen spells *Præst*, *præst*, but he is again alone in this practice.

A more important suggestion was that the sign *å*, having the power of a broad *o* in English, should be adopted from the Swedish in exchange for the *aa* now in use. It appears that the Danish language has repeatedly flirted with the *å*. Rydqvist, the Swedish philologist, believes that it was originally borrowed by Sweden from old Danish MSS. This legendary origin has given the sign a charm in the eyes of the Pan-Scandinavian party, and the use of it is almost a shibboleth with them. Larsen rejects it. He also retains the mute *d* and *h*, and the letter *x*. The mute final *d* no reformer, not even Ibsen, has had the courage to drop, though the Stockholm meeting, in its unflinching rectitude, recommended this also.

Mr. Larsen has had the assistance of Mr. Jacob Lökke, the well-known Norwegian linguist, in his labour of revision, and this adds no little to our confidence in the accuracy of the details, for Mr. Lökke is one of the highest authorities on all matters connected with Scandinavian philology. We heartily recommend this new dictionary to the attention of scholars and travellers.

EDMUND W. GOSSE.

Correspondence.

To the Editor of the ACADEMY.

Berlin, 27th July, 1873.

SIR,—In a letter dated Bombay, 19th April, and published in your number of June 14th (No. 74, p. 237), Professor R. G. Bhandarkar complains of my inattention to one of his statements with regard to the age of *Patanjali*, as manifested in my letter of the 25th February, published in your number of March 15th (No. 68, p. 118). I beg first to call the attention of Mr. Bhandarkar (as well as that of your readers) to the simple fact that I could not possibly advert at that time to the reiterated statement of his opinions as contained in the *Indian Antiquary* of February last, p. 59; for the February number of that valuable periodical did not reach Berlin before the 3rd March. If, further, I did not pay the attention due in Mr. Bhandarkar's eyes to the first statement of his views (in the *Indian Antiquary*, October, 1872, p. 300) it is certainly not because I "did not see" that those two passages of the *Mahābhāṣya*, of which he there treats, "are distinct" ("still Prof. Weber does not see that they are distinct passages. I am at a loss to conceive how it could be so"), but merely because I could not at all attach to that passage treating on the "sacrificing for Pushpamitra" the same value as he does. On the very day before he wrote to you, the 18th April, I addressed a long letter on the subject to the editor of the *Indian Antiquary*, which will probably soon be published in its columns, and in which I have treated the whole question anew with direct reference to that singular passage, answering all the different proposals made by Mr. Bhandarkar on it and on similar points. In referring to it such of your readers as may be interested in the subject, I beg to call their attention also beforehand to a somewhat extensive dissertation on the *Mahābhāṣya* itself, which is now in the course of printing in vol. xiii. of my *Indische Studien*, and in the introduction of which I have surveyed again, even more fully, the present state of the researches on the age of that work.

As I stated at the end of my former letter to you, on Professor Bühler's authority, that "the Jainas spell the name of the Indian king in question in their Māgadhi-texts *Pupphamitta*, which gives Pushpamitra as the right form," I would add now, that according to a later statement from the same source, received May the 17th, it is but Merutunga in his Vicāragreni who reads thus, whereas the text itself, on which his commentary runs, has *Pāsamitta*, and this is the reading also of four other texts. The form *Pushyamitra* regains, therefore, its former plausibility; as a *Nāḥshatra*-name it has indeed more appearance of being the true form of the name, than the rather insignificant form

Pushpa-mitra. Moreover, the predecessor of the king also is called by the Buddhists *Pushyadharman.* A. WEBER.

Notes and Intelligence.

An International Congress of Orientalists will hold its sittings in the great amphitheatre of the Sorbonne at Paris from the 1st till the 9th of September next. Its purpose is to create personal relations among men interested in Oriental affairs. The following subjects have been set down for discussion:—1. What portions of Japanese literature would it be most useful to translate at this moment, and what are the philological resources for undertaking the publication? 2. Would it not be useful to establish a uniform orthography for the transcription in Europe of all Japanese texts? 3. What are the documents of a nature to facilitate the understanding of the special scientific, literary, and industrial works of the Japanese? 4. What is the nature of the actual movement of Japanese civilization, and of its relations with European civilization? 5. What are the characters of Japanese art at the different epochs, and what method is to be followed for studying them? 6. In what measure has actual Japanese literature, strongly saturated as it is with European ideas, interest for Europe? and may it be thought that the progress realized by the Japanese savants will be of a nature to contribute to the scientific movement of the Eastern nations? The subscription for becoming a member of the Congress is fixed at twelve francs. The offices of the Congress are 49, Rue de Rennes, Paris.—*Pall Mall Gazette.*

We learn that Prof. Summers, who has engaged himself to the Educational Board of Japan, and is about to take up his residence in that country, will continue to edit the *Phoenix*, which will for the future be published at Yokohama. The next number will not be issued before January, 1874.

New Publications.

- ANDREE, R. Das Sprachgebiet der Lausitzer Wenden vom 16. Jahrh. bis zur Gegenwart. In Comm. Leipzig: Brockhaus.
- ASCOLI, G. J. Archivio glottologico italiano. Volume secondo. Puntata Prima. Turin: Loescher.
- BOUCHERIE, A. Fragment d'une anthologie picarde (xiii^e siècle). Paris: Franck.
- BURNELL, A. C. The Sāmavidhānabrāhmaṇa (being the third Brāhmaṇa) of the Sāma Veda. Vol. I. Trübner.
- CHOSSAT, A. DE. Essai d'une classification du syllabaire assyrien. Paris: Maisonneuve.
- CORPUS inscriptionum atticarum. Vol. I. Inscriptiones Euclidis anno vestustiores, ed. A. Kirchhoff. Berlin: Reimer.
- CORPUS inscriptionum latinarum. Vol. III. Inscriptiones Asiae provinciarum Europae Graecarum, Illyrici, Latinae. Ed. Th. Mommsen. Berlin: Reimer.
- ERHARDT, Grammatikalien zum Verständniß d. Nibelungen-Liedes. 2 Abth. Syntaktisches. Tübingen: Fues.
- FACCIOLATI, J., A. FORCELLINI, et T. FURLANETTI. Lexicon totius latinitatis, cura opera et studio lucubratum nunc demum juxta opera R. Klotz, G. Freund, L. Döderlein aliorumque recentiorum auctus emendatus melioremque in formam redactum curante doctore Fr. Corradini. Tomus III. Fasc 3. Patavii: typis Seminarii.
- FORCELLINI, A. Totius latinitatis lexicon, adjecto insuper altera quasi parte onomastico totius latinitatis, cura et studio V. de-Vit. Distr. 48. Leipzig: Brockhaus.
- HINTNER, V. Beiträge zur Tirolischen Dialektforschung. Wien: Beck.
- JOLLY, Dr. J. Geschichte der Infinitivs im Indogermanischen. München: Ackermann.
- MEYER, C. Die Nibelungensage. Basel: Schneider.
- NODAL, Dr. J. F. Elementos de Gramática Quichua, ó Idioma de los Yncas. Trübner.
- PAUTHIER, G. Le Livre classique des trois caractères de Wāng Pēh-Héou en chinois et en français. Paris: Challamel aîné.
- RÖSSLER, C. Th. Dionysii Halicarnassensis scriptorum rhetoricorum fragmenta. Göttingen: Deuerlich.
- TEGNER, E. Frithiofs Saga. Schwedischer Urtext. Hrsg. von G. von Leinburg. Mit e. Wörterb. u. kurzgefasster Grammatik v. C. Silberstein. Frankfurt a.-M.: Winter.
- ZEITSCHRIFT für vergleichende Sprachforschung auf dem Gebiete d. Deutschen, Griechischen, u. Lateinischen. Hrsg. v. A. Kuhn. 22 Bd. 1 Hft. Berlin: Dümmler.

THE ACADEMY.

"INTER SILVAS ACADEMI QUÆRERE VERUM."

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Readers are reminded that the mention of New Books, Articles, &c., in our lists is intended as a guarantee of their importance.

The Editor of THE ACADEMY cannot undertake to return communications which are not asked for.

The Editor cannot reply to questions from authors respecting the notice of their books.

The next number will be published on Monday, September 1, and Advertisements should be sent in by August 28.

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The Hibbert Trustees are prepared to grant at their meeting in December next One or more Scholarships of £200 per annum each, for two years, to Graduates of any University in Great Britain and Ireland, between the ages of twenty-one and twenty-eight, to enable them to study Theology and Mental and Moral Philosophy at Universities in Germany, Holland, or Switzerland (or elsewhere), subject to the approval of the Trustees. Full particulars may be obtained of the Secretary, to whom applications for Scholarships must be forwarded before October 1, 1873.

A. H. PAGET, Secretary.

University Hall, Gordon Square, W.C.

British Association for the Advancement of SCIENCE,

22, Albemarle-street, London, W.

The NEXT ANNUAL GENERAL MEETING will be held at BRADFORD, commencing on WEDNESDAY, September 17.

President Designate—Professor A. W. WILLIAMSON, Ph.D., F.R.S., F.C.S., in the place of J. P. JOULE, D.C.L., LL.D., F.R.S., who has resigned the Presidency in consequence of ill-health.

NOTICE to CONTRIBUTORS of MEMOIRS.—Authors are reminded that, under an arrangement dating from 1871, the acceptance of Memoirs, and the days on which they are to be read, are now, as far as possible, determined by Organizing Committees for the several Sections before the beginning of the Meeting. It has therefore become necessary, in order to give an opportunity to the Committees of doing justice to the several communications, that each Author should prepare an Abstract of his Memoir, of a length suitable for insertion in the published Transactions of the Association, and that he should send it, together with the Original Memoir, by book-post, on or before September 1, addressed thus—"General Secretaries, British Association, 22, Albemarle-street, London, W. For Section....." If it should be inconvenient to the Author that his Paper should be read on any particular day, he is requested to send information thereof to the Secretaries in a separate note.

Information about local arrangements may be obtained by application to the Local Secretaries, Bradford.

G. GRIFFITH, M.A., Assistant General Secretary, Harrow.

Junior Assistant for Photographic and Spectroscopic Observations in the Royal Observatory, Greenwich.

An open competition for one situation will be held in London, on Tuesday, September 30th, and following days.

A preliminary examination will be held in London, Edinburgh, and Dublin, on Tuesday, September 16th.

Limits of age, 18 and 25. Application for the regulations and the necessary form should be made at once to the Secretary, Civil Service Commission, Cannon Row, London, S.W.

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